3 MOBILITY

This chapter describes the transportation and circulation network for the Belmont Village Planning Area. Streets are public property that, with thoughtful and meaningful design, can become a public asset. This is especially true for Belmont Village, where public streets and pathways are intended to become vital components of the urban fabric and meaningfully contribute to placemaking. Well-designed streets complement surrounding land uses and provide for attractive, safe, and efficient circulation for all users and all modes of transportation. In the context of the Belmont Village Planning Area, vibrant streets create a comfortable and enjoyable center for social and economic activity for Belmont residents from surrounding neighborhoods and people from the larger Bay Area region.

The chapter outlines the goals and policies related to transportation and circulation, and describes specific changes to the street network that will promote these goals and policies.

3.1 COMPLETE STREETS VISION

The street network will be designed to balance mobility, economic health, safety, and vibrancy in Belmont Village. Accommodation of automobiles will comply with the City's priorities for pedestrians, bicycles and transit. To achieve this "Complete Streets" balance, multiple strategies are needed to promote alternative modes, manage parking and traffic more effectively, and make street- and parking-related improvements.

The City endeavors to ease congestion and reduce dependence on the automobile by supporting pedestrian and bicycle infrastructure improvements, implementing Transportation Demand Management strategies, and increasing transit ridership, resulting in a reduction of vehicle-miles traveled (VMT) consistent with ABAG's Plan Bay Area VMT reduction targets for the year 2035. Redevelopment of Belmont Village with the proposed land use mix and densities, and supporting complete streets infrastructure, aids this goal.

The Specific Plan aims to design a network of balanced complete streets in Belmont Village, similar to the complete street example shown above.

COMPLETE STREETS DESIGN CONCEPTS

Streets constitute one of the largest publicly owned spaces in the city. Streets should provide a balanced, multimodal transportation network that creates a stronger identity for the Planning Area, increases public safety, and improves public health with appropriate space to encourage active use. Complete Streets meet the needs of all users of roadways, including motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.

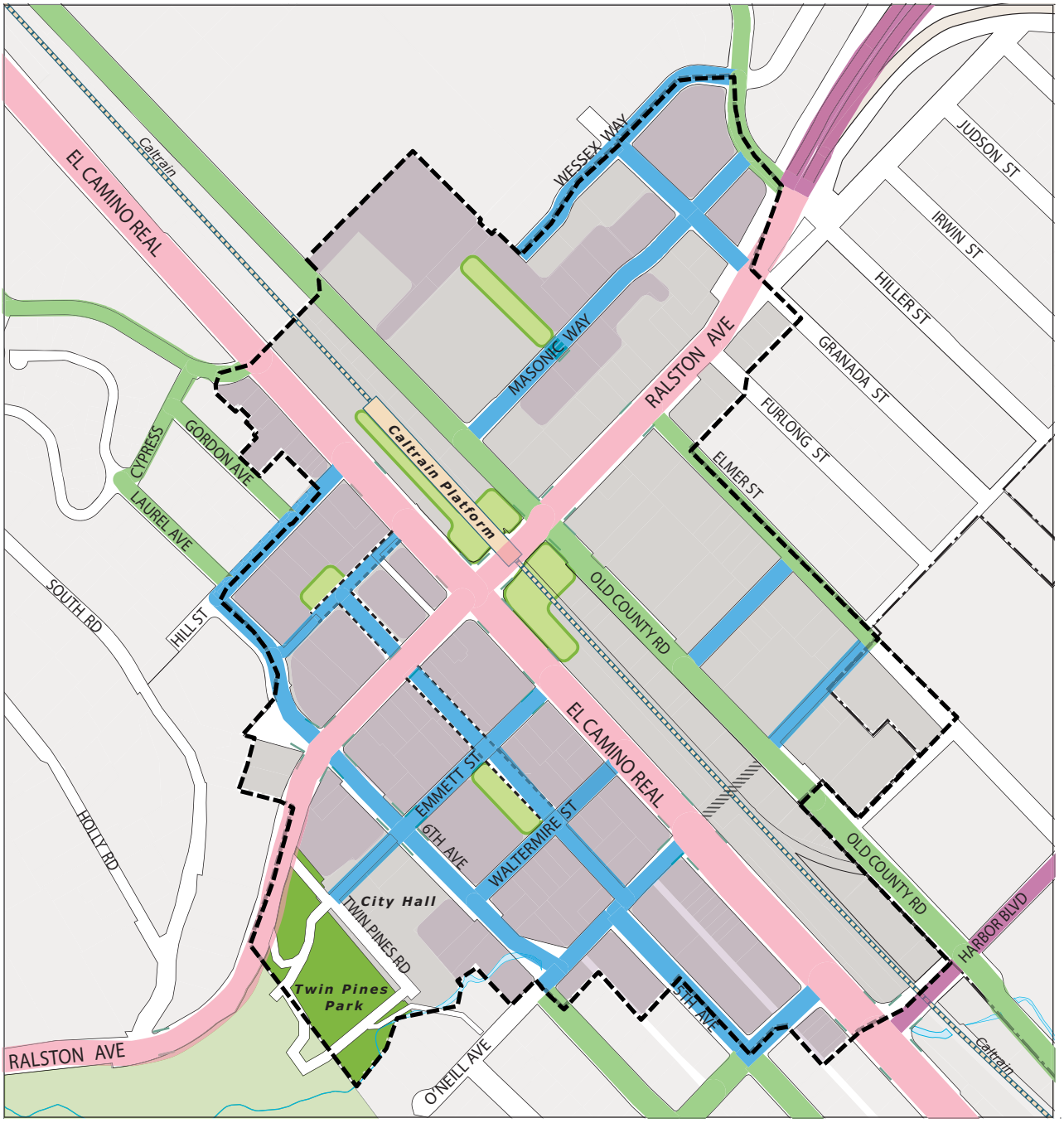
This Specific Plan establishes design guidelines for the street typologies, which are discussed in the following section, that complement surrounding land uses, work within right-of-way constraints, and minimize rigid dimension requirements. All conceptual improvements (including precise location and dimensions) are subject to refinement based on available right of way and traffic operations. Listed below are descriptions for street types relevant to Belmont Village that incorporate Complete Streets design elements as applicable. The Street Typology framework is consistent with that presented in the City of Belmont General Plan Circulation Element.

STREET TYPOLOGY

Functional classification of roadways is traditionally based on the type of vehicular travel on a facility. Complete Street classifications categorize streets based on their multimodal travel priorities and connection to adjacent land uses. Different streets can serve different purposes and should be contextually-sensitive, or reflective of location. To ensure balanced, safe, and efficient roadways, the needs of users must be clearly established and complementary of surrounding land uses. Street typologies can be used to define the needs of users of a roadway.

Belmont's roadway system hierarchy of street types is illustrated in Figure 3-1; typical street sections, with width dimensions, for the different types of streets are shown in Figure 3-2. Mode priorities for each street type are shown in Table 3-1. This provides a guideline for prioritizing modes on new and improved roadways within the city. Table 3-2 provides general guidance on widths of typical roadway elements, while Chapter 4 provides detailed streetscape standards.

FIGURE 3-1: PROPOSED STREET TYPOLOGY



Core

Park/Plaza. *Location and size are approximate and conceptual; refer to relevant policies for detail.*

Belmont Village PDA Boundary

City Limits

Potential New Right-of-Way

Proposed Bicycle/Pedestrian Underpass

Main Street

Boulevard

Avenue

Urban Arterial

0 200 400 800
FEET

1 ACRE
.25 AC.

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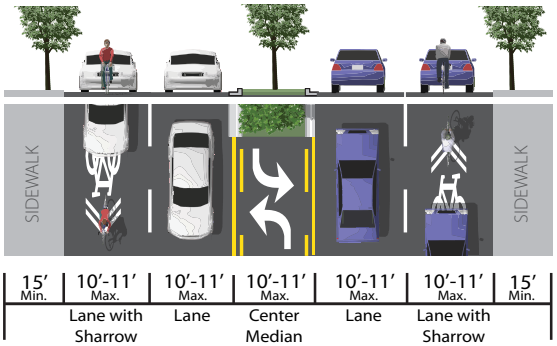
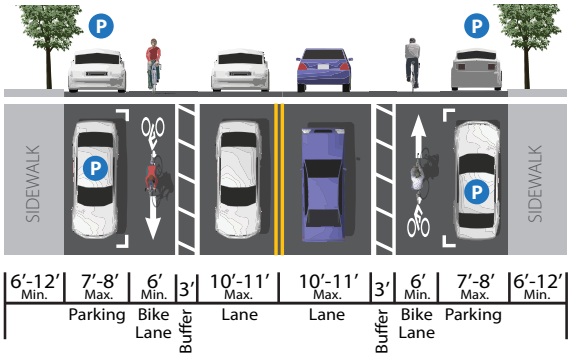
FIGURE 3-2: TYPICAL STREET SECTIONS FOR STREET TYPOLOGIES

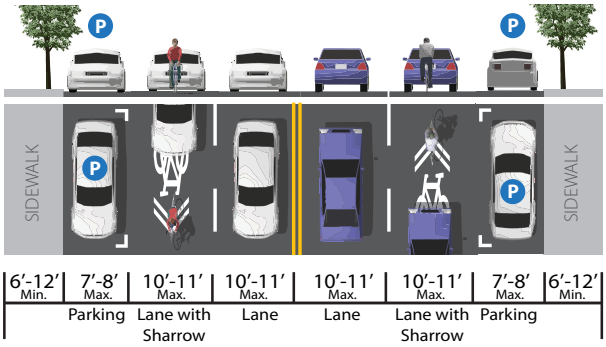
Boulevard (Ralston Ave)



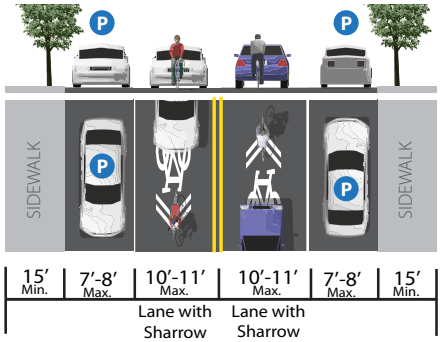
Avenue or Main St with Buffered Bike Lanes



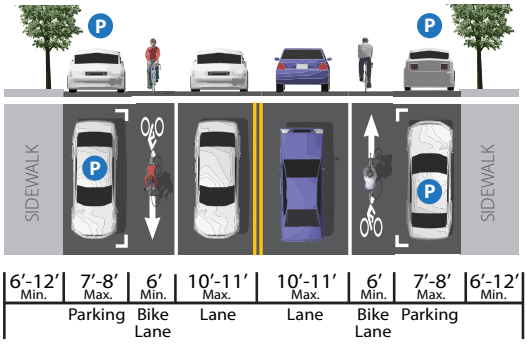
Avenue or Main St with Sharrows



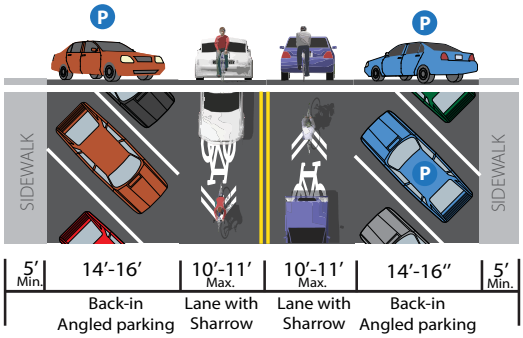
Sixth Ave (Ralston Ave to Waltermire St)



Avenue or Main St with Bike Lanes



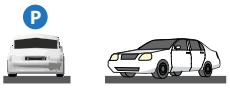
Fifth Ave (O'Neill Ave to Broadway)



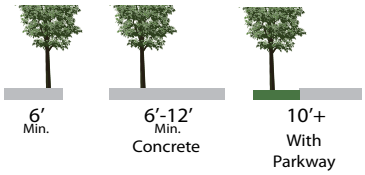
Typical Roadway Elements

Travel Lanes

Parking



Sidewalk



Bikeway

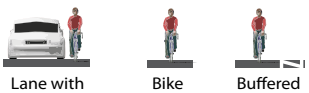


Table 3-1: Mode Priorities for Proposed Street Typologies

	Transit	Bicycles	Pedestrians	Trucks	Automobiles
Freeway	A	P	P	D	D
Urban Arterial	D	A	A	D	D
Boulevard	D	A	A	A	A
Main Street	A	D	D	P	A
Avenue	A	A	A	A	A
Local Street	P	D	D	P	A

Key: D = Dominant; A = Accommodated; P = Prohibited

Table 3-2: General Guidelines on Widths of Typical Roadway Elements

Roadway Element	Width[1]
Travel Lane	10' - 12' maximum
Center Median[2]	3' - 11' maximum
Parallel Parking Lane	7' - 8' maximum
Back-In Angled Parking Lane	14' - 16' maximum
Sidewalk	5' - 12' maximum
Sidewalk with Planter	12' maximum
Class II Bike Lane	5' minimum; 6' maximum
Class II Bike Lane with Buffer	6' minimum; 8' maximum

Note:
1. These widths are general guidelines; individual streets may have road elements with widths that differ from these guidelines due to the constraints of the right-of-way or the traffic needs on the street. For example, El Camino Real may need 12' outside lanes to accommodate transit on the corridor.
2. Median may be wider on Fifth Avenue in the Village Core between Emmett and Waltermire streets to accommodate a plaza.

Freeway

Freeways serve regional traffic on a high speed, high capacity facility. Intersections of on- and off-ramps with roadways within the city should provide opportunity for safe crossing for bicycles and pedestrians where appropriate.

Urban Arterial

Urban Arterials carry large vehicle traffic volumes. These roadways are intended to operate at efficient speeds, linking neighborhoods, retail, and employment centers to the freeways and to each other. The objective of an Urban Arterial is mobility, and all transportation modes should be considered. Access (e.g., driveways) should be limited in order to reduce conflict zones and reduce hazards between modes.

Boulevards accommodate multimodal travel with traffic calming elements, including landscaped medians. These streets provide both local and regional transit service with benches and shelters at bus stops, have wide sidewalks for comfortable walking, provide dedicated bike facilities for bike commuting, and have enhanced pedestrian and bicycle crossings. Pedestrian and conventional scale lighting should be provided along the street.

Main Street

Main Streets provide primary access to retail and shopping in denser areas and typically include parking. Ample and comfortable facilities are dedicated to bicyclists and pedestrians. Segments could be closed to vehicular traffic to create promenades either permanently or for special events, such as farmer's markets. Street trees, pedestrian-scale lighting, wayfinding signs, and other street furniture should be prioritized.

Avenue

Avenues provide access between retail areas and local streets and should include bicycle lanes or routes, have enhanced and short crossings for pedestrians, provide some transit service, and feature street trees and street lights.

Local Street

Local Streets are neighborhood streets that provide access to homes and schools, typically with low vehicular speeds, street trees, and street lighting at intersections. Sidewalks and crossing amenities should be provided at intersections with larger streets.

CONNECTIVITY

A well-connected transportation network within the Planning Area is beneficial to all users and modes and is consistent with Complete Streets principles. New development and redevelopment should connect to existing and planned transportation facilities.

GOAL 3.1 Provide a vibrant, safe, and connected street network that facilitates multi-modal movement of people within and to the Belmont Village Planning Area and ensures the citywide goal of reducing vehicle-miles travelled consistent with ABAG's Plan Bay Area VMT reduction targets.

Policy 3.1-1 Ensure efficient but managed vehicle access in the Planning Area by:

- Limiting driveways within the Village Core area to one per block face to the greatest extent feasible;
- Prohibiting an increase in the number of driveways on Ralston Avenue between Sixth Avenue and El Camino Real; and
- Strongly encouraging an overall reduction in the number of driveways on Ralston Avenue between Sixth Avenue and El Camino Real as properties redevelop.

Policy 3.1-2 Pursue Complete Streets transportation infrastructure improvements needed to accommodate growth and land use changes proposed in Belmont Village.

Policy 3.1-3 Create an accessible circulation network that is consistent with guidelines established by the Americans with Disabilities Act (ADA), allowing mobility-impaired users, such as the disabled and seniors, to safely and effectively travel within and beyond the city. Limit driveways within the Village Core area to one per block face to the greatest extent feasible;

- Prohibiting an increase in the number of driveways on Ralston Avenue between Sixth Avenue and El Camino Real; and
- Strongly encouraging an overall reduction in the number of driveways on Ralston Avenue between Sixth Avenue and El Camino Real as properties redevelop.

3.2 COMPLETE STREETS IMPLEMENTATION

A network of sidewalks currently serves pedestrians in the Planning Area. However, the Planning Area generally lacks connected bike lanes, adequate sidewalk widths, ADA-compliant curb ramps, adequately timed crosswalk countdown signals, and sufficiently safe intersection crossings for people walking and biking. In addition to being too narrow to accommodate two-way pedestrian movement, some sidewalks are obstructed with street light poles and street trees. As a result, people using assistive devices (e.g., wheelchairs) must use the street in many instances. Pedestrians may also be impeded along the sidewalk.

Complete Streets provide safe mobility for pedestrians, bicyclists, and automobiles.

COMPLETE STREETS IMPROVEMENTS TOOLBOX

The following toolbox is intended to provide a variety of options for Complete Street improvements in the Planning Area. Not all items in the toolbox are applicable for every location, and in some cases, multiple items might be appropriate. Many items are informed by guidelines developed by the National Association of City Transportation Officials (NACTO). This is not intended to be an exhaustive list and other best practices may be considered in addition to or in place of the following, depending on context and project-specific conditions.

The capital improvements recommended in the next section for various locations throughout the Planning Area will make reference to the tools presented here.

Corridor Improvements

Sidewalks

Sidewalks should be provided along all streets within the Planning Area. Sidewalks should be a minimum width of six feet, exclusive of other amenities or plantings to allow for two people to walk side by side. Wider sidewalks (including planting areas and space for street furnishings) will enhance the pedestrian environment and encourage increased pedestrian activity.

Pedestrian-Scale Lighting

Pedestrian-scaled lighting should be provided along sidewalks, paths, and public spaces. Such lighting includes pole lighting that is oriented toward the pedestrian space and sized at a pedestrian scale. Decorative lighting can be used to create an attractive and cohesive identity for the Planning Area. Lighting should be consistently spaced to avoid dark spots and encourage a comfortable and safer environment.

Driveway Consolidation

An excess of driveways on a street segment creates obstacles for pedestrians and bicyclists and can disrupt flow, resulting in delays for vehicle traffic. Driveways should be limited and consolidated to the extent possible, or placed on secondary streets. Existing driveways will be removed and relocated so that access will still be provided from an adjacent street. New driveways in all other locations within the Village Core should be limited to one (or fewer) per block face.

Back-in Angled Parking

Back-in angled parking provides motorists with better vision of bicyclists, pedestrians, and vehicles as they leave a parking space and enter into the travel lane. They provide bicyclists with better vision of drivers as they attempt to park or leave a parking space. Back-in angled parking eliminates the risk of a motorist opening a car door into the path of a bicyclist and allows passengers to exit a vehicle toward the sidewalk rather than toward the street. Another benefit of back-in angled parking is increased parking capacity. Back-in angled parking takes up 10 to 12 feet of lateral curb per vehicle, versus 22 feet per vehicle for parallel parking.

Multi-use Pathways (Class 1)

Multi-use pathways are completely separated from the street and provide right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.

Separated Bikeways (Class IV)

Separated bikeways are located within the roadway, but are for the exclusive use of bicyclists and are physically separated from travel lanes. Several treatments exist that provide physical separation from passing vehicle traffic, including curbs, parked cars, flexible bollards, and planters.

Bike Lanes (Class II)

Bike lanes are painted lanes for the use of bicyclists. NACTO recommends five-foot minimum lane width. Wider lanes or buffers may be used to protect against doors from parked vehicles.

Buffered Bike Lanes (Class II with painted buffers)

Buffered bike lanes are conventional (Class II) bikes lanes paired with a designated buffer space separating the bicycle lane from the vehicle travel lane. NACTO recommends five-foot minimum lane width and three-foot painted buffers.

Bike Routes/Sharrows (Class III)

Bike routes (Class III) are roadway segments where bicyclists and motorists share the travel lane. These segments typically include shared lane markings or "sharrows" to indicate the shared nature of the travel lane. These segments are typically signed as bike routes. Sharrows may have green paint underlying them ("greenback") to increase visibility to motorists.

Bicycle Boulevards

Bicycle boulevards are enhanced bike routes with additional design elements, including speed control, vehicle volume control, safe intersection crossings, and clear wayfinding. Bicycle boulevards are appropriate on streets with traffic volumes fewer than 3,000 vehicles per day and the 85th percentile speed not to exceed 25 miles per hour.

Shared Street or Woonerf

A shared street or woonerf is a street that is shared between pedestrians, bicyclists, and automobiles. Even though it is a shared corridor, pedestrians have priority. The street is designed without a clear division between pedestrian and auto space (i.e., no continuous curb), so motorists are forced to slow down and travel with caution. Limiting vehicular speed not only improves pedestrians' feelings of safety, but also promotes greater use of the public space.

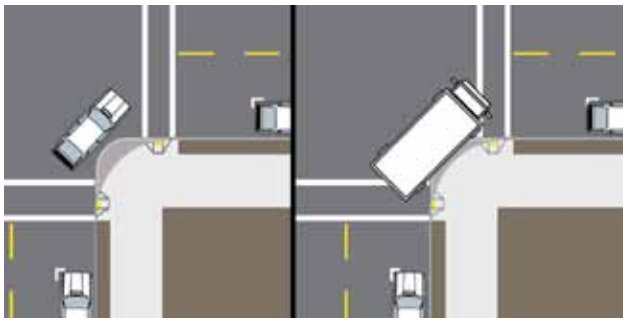
Intersection Improvements

Curb Extensions

Curb extensions visually and physically narrow the roadway, resulting in shorter crossing distances and improved safety for pedestrians and bicyclists. Curb extensions tighten intersection curb radii and encourage slower vehicle turning speeds.

ADA Curb Ramps

Curb ramps shall comply with Americans with Disabilities Act (ADA) standards and be designed to match the width of adjacent crosswalks. Where feasible, curb ramps should be provided in the direction of travel, not at the corners.



Corner Radii

Corner radii have a direct impact on vehicle turning speeds and pedestrian crossing distances. NACTO recommends that corner radii not exceed 15 feet in urban settings. Corner radii may be increased in select locations where delivery trucks require access to serve businesses and residences.

Raised Intersections

Per NACTO, raised intersections are flush with the sidewalk and are intended to make drivers traverse the intersection slowly. Crosswalk markings are not required unless they are not at grade with the sidewalk. ADA-compliant ramps and detector strips are required. Raised crosswalks are a variation where the crosswalk is raised, often in mid-block locations.

Crosswalks

Crosswalks for pedestrians should be provided at all intersections and across all legs of intersections. Within the Planning Area, high-visibility crosswalks—including continental or decorative style—are recommended to increase visibility. Mid-block crosswalks may be provided along streets with heavy pedestrian activity and streets with heavy movement across the street, but typically include added crossing features. Wherever physical improvements are made to a pedestrian crossing, it may be necessary to upgrade curb ramps to meet standards set in the Americans with Disabilities Act (ADA).

Crossbike Crossing

Crossbike crossings are facilities designed to alert drivers of bicycle crossings. The treatment includes high visibility green crosswalk markings.

Pedestrian Hybrid Beacon (PHB)

Pedestrian Hybrid Beacons (PHBs) are a traffic control device used to increase motorists' awareness of pedestrian crossings by providing control for vehicle traffic at marked crosswalk locations and are activated by pedestrians when needed. Bicyclists can also use these beacons. PHBs can be interconnected such that signal timing is coordinated with nearby intersections.

Rectangular Rapid Flash Beacon (RRFB)

Rectangular Rapid Flashing Beacons (RRFBs) are user-actuated amber flashing lights that supplement warning signs at uncontrolled crossings. RRFBs alert drivers to yield when bicyclists and pedestrians cross a road. RRFBs operate independently from traffic signals; therefore, PHBs or traffic signals are recommended instead of RRFBs when close to an existing signalized intersection.

Pedestrian Countdown Signals

Pedestrian countdown signals create a more predictable crossing environment and give sufficient warning to pedestrians trying to cross a roadway. Countdown signals will provide sufficient time for users to cross the street before the timer reaches zero based on standards.

Median Refuge Islands

Median refuge islands are generally used at locations where speeds and volumes make crossings for pedestrians prohibitive, or where three or more lanes of traffic make pedestrians feel exposed or unsafe in the crosswalk. According to NACTO, median refuge islands should be at least six feet wide, but have a preferred width of eight to 10 feet. Where a six-foot wide median cannot be attainted, a narrower raised median is still preferable to nothing. The minimum protected width is six feet, based on the length of a bicycle or a person pushing a stroller. A refuge is ideally 40 feet long.

Bike Box

A bike box is a designated area located at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible space to get in front of queuing traffic during the red signal phase. Motor vehicles must queue behind the white stop line at the rear of the bike box. On a green signal, all bicyclists can quickly clear the intersection.

Bike Detection and Actuation

Bicycle detection and actuation is used to alert the signal controller of bicycle crossing demand on a particular approach. Proper bicycle detection should meet two primary criteria: accurately detects bicyclists and provides clear guidance to bicyclists on how to actuate detection (e.g., what button to push, where to stand).

Intersection Crossing Markings

Bicycle pavement markings through intersections guide bicyclists on a safe and direct path through the intersection and provide a clear boundary between the paths of through bicyclists and vehicles in the adjacent lane.

Two-Stage Turn Queue Boxes

Two-stage turn queue boxes offer bicyclists a safe way to make left turns at multi-lane signalized intersections from a right side separated bikeway or bike lane, or right turns from a left side separated bikeway or bike lane. Two-stage turn queue boxes may also be used at unsignalized intersections to simplify turns from a bicycle lane or separated bikeway, as for example, onto a bicycle boulevard. At midblock crossing locations, a two-stage turn queue box may be used to orient bicyclists properly for safe crossings. Multiple positions are available for queuing boxes, depending on intersection configuration.

3.3 PLANNED IMPROVEMENTS

EXISTING PLANS

Several other plans that include corridor and intersection improvements in the Planning Area are described below. This Specific Plan builds on these plans' recommended improvements.

San Mateo County Comprehensive Bicycle and Pedestrian Plan

The 2011 San Mateo County Comprehensive Bicycle and Pedestrian Plan indicates planned expansion of the existing bicycle network in Belmont. Identified improvement areas include El Camino Real within the city limits, Ralston Avenue from the westerly city limits to El Camino Real, Old County Road and Twin Pines Park.

Ralston Avenue Corridor Study and Improvements Plan

The 2014 Ralston Avenue Corridor Study and Improvements Plan developed context-sensitive multimodal improvements for the Ralston Avenue corridor between US Route 101 and Interstate 280-California State Route 92. Pedestrian travel improvements along the Ralston Avenue corridor focus on providing sufficient crossing times at signalized intersections and improved crossing visibility.

Specific bicycle travel improvements for the Ralston Avenue corridor, including a new path along the northern edge of Twin Pines Park, are identified and evaluated in the Ralston Avenue Corridor Study and Improvements Plan. The plan identified Masonic Way and Emmett Street as alternate routes to Ralston Avenue as they have significantly lower traffic volumes and speeds than Ralston Avenue. There is significant overlap between the Ralston Avenue Corridor Study area and the Planning Area for this Specific Plan; relevant pedestrian and bicycle travel improvements identified in the Corridor Study have been incorporated into the proposed improvements in this document.

A Pedestrian Hybrid Beacon, similar to the one shown above, may be a solution at Ralston Avenue and 5th Avenue.

Grand Boulevard Multimodal Transportation Corridor Plan

The Grand Boulevard Multimodal Transportation Corridor Plan provides strategies and design concepts that local jurisdictions can choose to implement in their communities to achieve the Grand Boulevard Vision. The vision is for El Camino Real to be a place where people can work, live, shop, and play and where connections are made between communities, encouraging people to walk, bike, and ride transit.

Per the Grand Boulevard Multimodal Transportation Corridor Plan, safe and attractive pedestrian facilities amenities should be provided along El Camino Real. Additionally, dedicated bicycle facilities should either be provided along El Camino Real where sufficient width is available or should be made available on a parallel bicycle boulevard, such as Old County Road.

CORRIDOR AND INTERSECTION IMPROVEMENTS

The following roadways will provide multi-modal facilities that serve users and reduce auto-dependence within Belmont Village. Applicable street typology and proposed improvements are discussed below and are identified in Figures 3-3 through 3-5.

Class III green-painted sharrows will be included in the Belmont Village Loop corridor improvements.

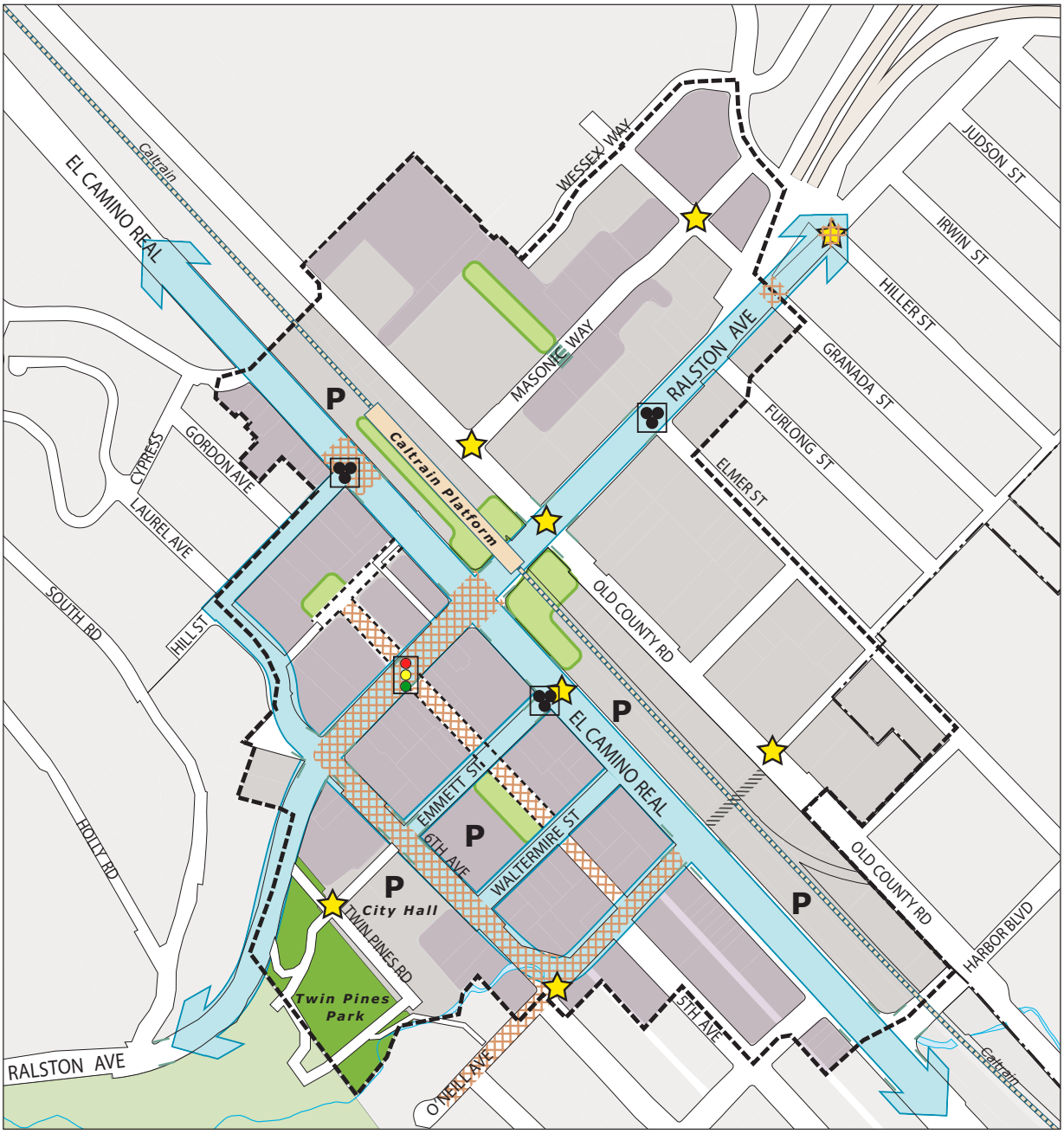
Belmont Village Loop

The Belmont Village loop is a concept that provides a complete streets environment around the perimeter of Belmont Village, accessible for people of all ages and abilities. The loop will provide low stress facilities for walking and biking on street segments, at intersections, and with an additional pedestrian/bicycle connection under the Caltrain tracks at O'Neill Avenue.

The proposed route for bicyclists includes portions of Hill Street, Masonic Way, Hiller Street, O'Neill Avenue, and Sixth Avenue. The proposed route for pedestrians includes portions of Flashner Lane, Masonic Way, Hiller Avenue, O'Neill Avenue, and Fifth Avenue. Figure 3-6 identifies the Belmont Village Loop.

Additional wayfinding or branding should be considered to help identify the Belmont Village Loop. While each street within the Belmont Village Loop varies in width, the Bike Boulevard/Belmont Village Loop improvements will consistently include Class III sharrows that are painted green, bike route signage, and "Belmont Village Loop" wayfinding signage. In addition, wide sidewalks and landscaping should be considered along each street. Connections to the US Route 101 overcrossing, Twin Pines Park, and other nearby destinations should be highlighted from this route.

FIGURE 3-3: CIRCULATION PLAN



Core

Park/Plaza *Location and size are approximate and conceptual; refer to relevant policies for detail.*

P Public Parking

Primary Vehicular Circulation

Bus Stop

PHB (Ped Hybrid Beacon)

Traffic Signal

Potential New Right-of-Way

Traffic Calming
(Table, Median, Island, Narrowing etc.)

Wayfinding Hotspots

Belmont Village PDA Boundary

City Limits

Proposed Bicycle/Pedestrian Underpass

0 200 400 800
FEET

1 ACRE
.25 AC.

Note: Proposed traffic signal at 5th Avenue and Ralston Avenue is subject to further study. Other design and traffic control solutions may be acceptable.

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FIGURE 3-4: PEDESTRIAN PLAN

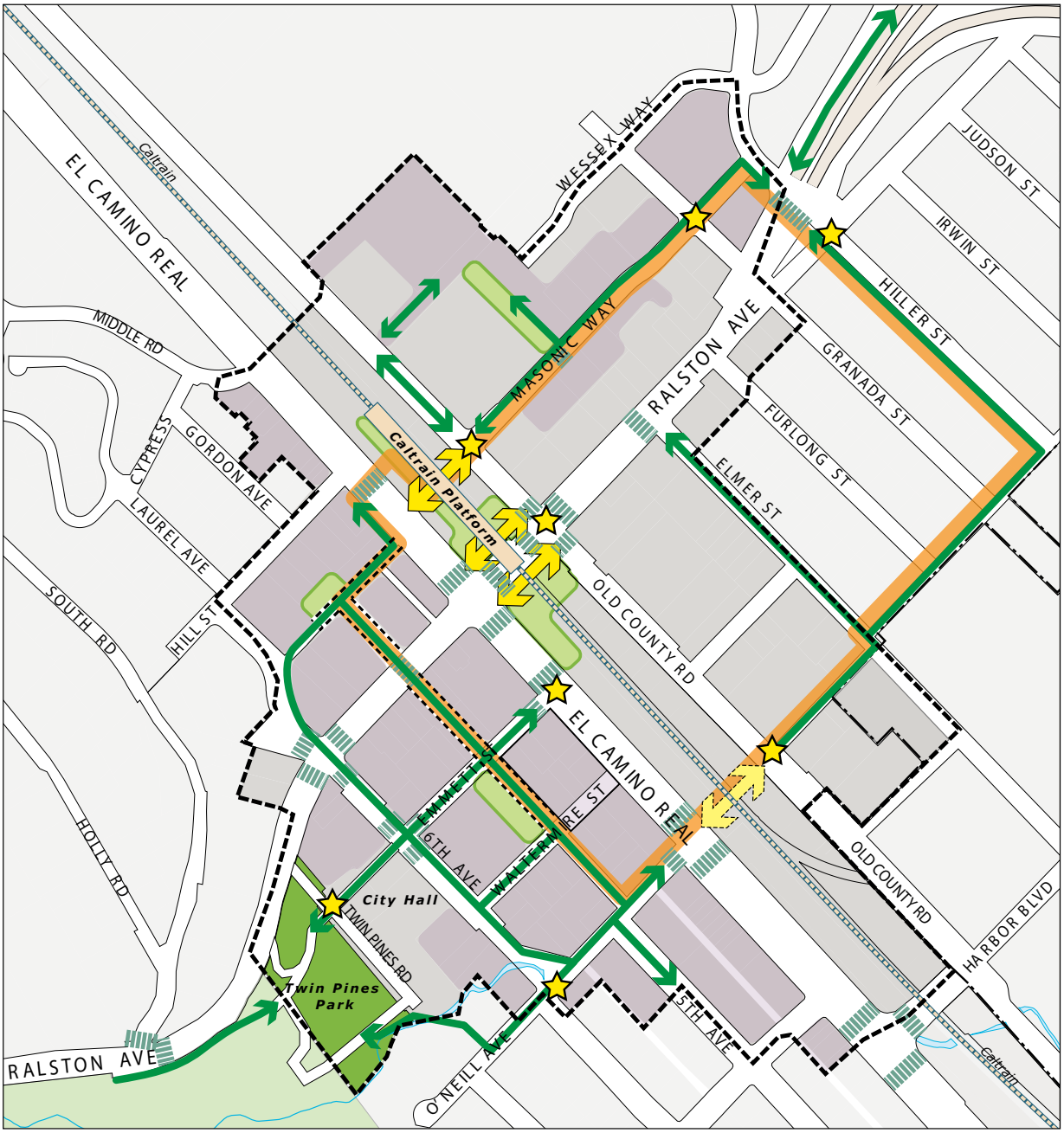

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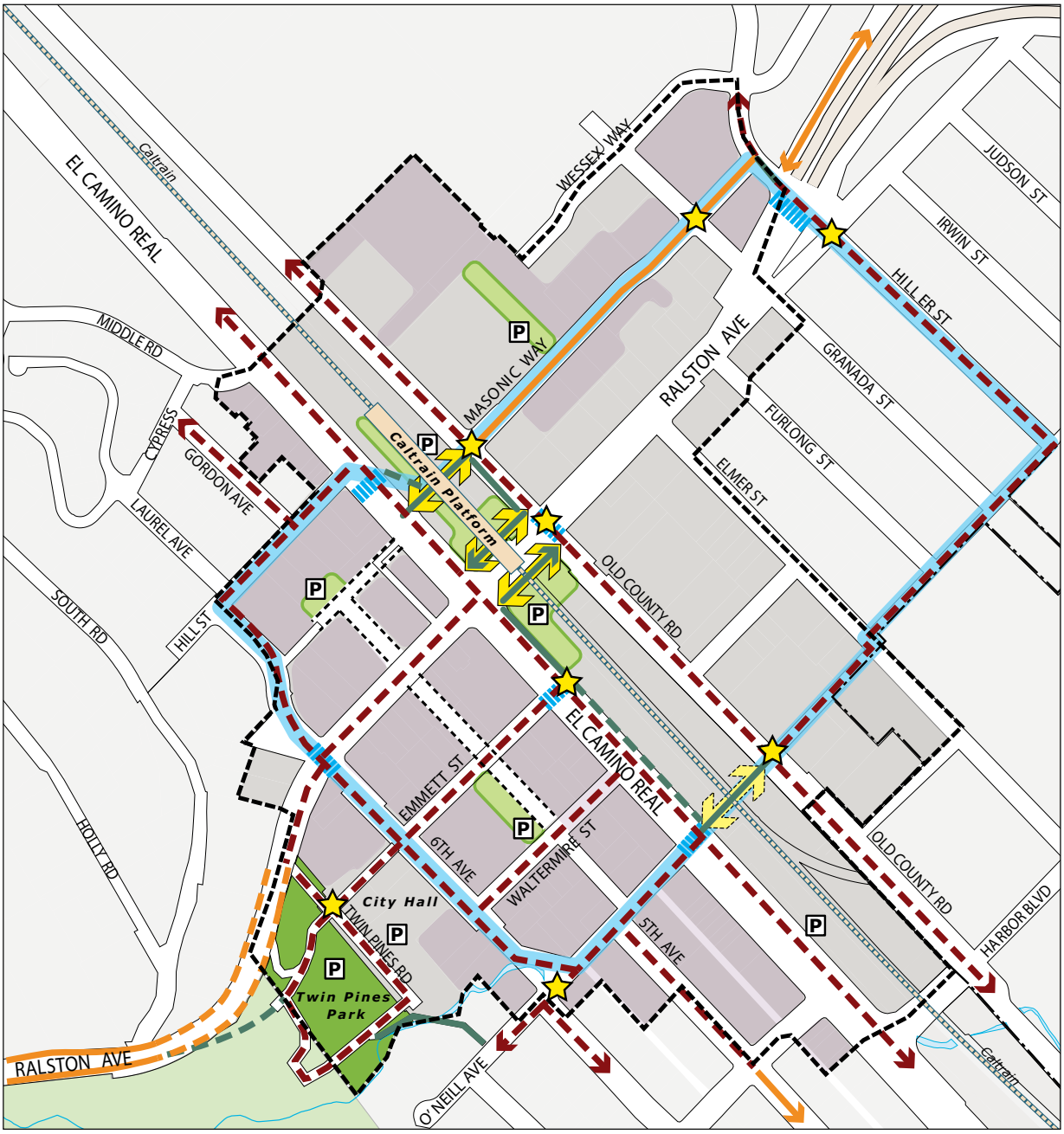
FIGURE 3-5: BICYCLE PLAN



Core

Park/Plaza *Location and size are approximate and conceptual; refer to relevant policies for detail.*

Proposed Off-Street Bike Parking

Existing/New Undercrossing for Pedestrians and Bicycles

Potential New Right-of-Way

Crossbike

Wayfinding Hotspots

Belmont Village PDA Boundary

City Limits

Class II Bike Lane
(Existing and per The Ralston Avenue Corridor Study and Improvements Plan)

Potential Additional Class II Bike Lane

Class I Separate Facility
(Existing and per The Ralston Avenue Corridor Study and Improvements Plan)

Potential Additional Class I Separate Facility

Class III Signed Shared Roadway
(Existing and per The Ralston Avenue Corridor Study and Improvements Plan)

Potential Additional Class III Facility

Belmont Village Bicycle Loop

0 200 400 800
FEET

1 ACRE
.25 AC.

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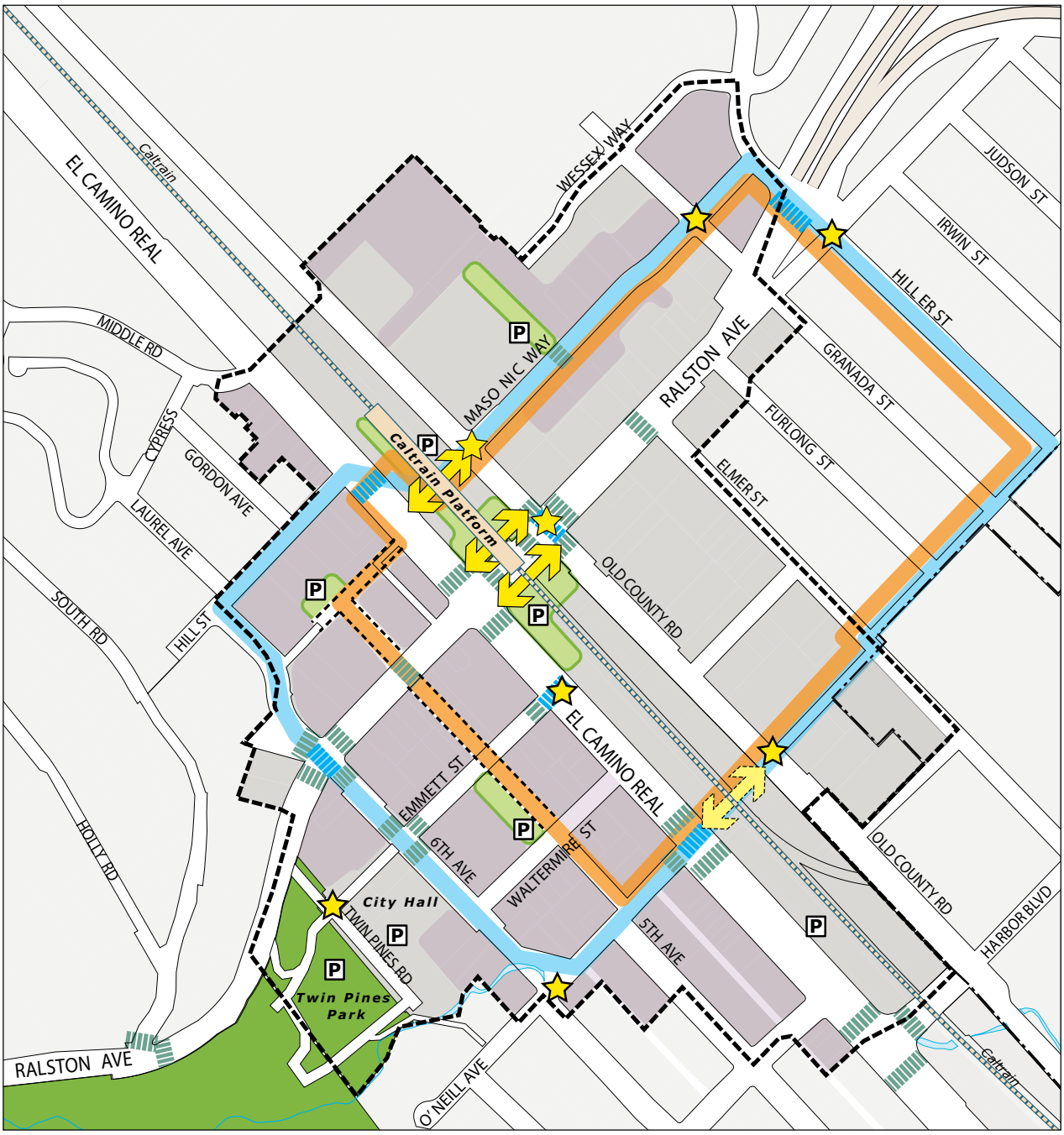
FIGURE 3-6: BELMONT VILLAGE LOOP



Core

Park/Plaza *Location and size are approximate and conceptual; refer to relevant policies for detail.*

Existing/New Undercrossing for Pedestrians and Bicycles

Potential New Right-of-Way

Crossbike

Wayfinding Hotspots

Belmont Village PDA Boundary

City Limits

Belmont Village Bicycle Loop

Belmont Village Pedestrian Loop

Crossbike

Improved At-Grade Crossing

0 200 400 800
FEET

1 ACRE
.25 AC.

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GOAL 3.2 Provide a continuous, connective, and convenient network for people walking and biking through, to, and within Belmont Village.

Policy 3.2-1 Develop the "Belmont Village Loop" as a cohesive and safe active transportation loop for pedestrians and bicyclists through the Village and around its perimeter. The following improvements should be made to facilitate development of the Belmont Village Loop:

- Designate Belmont Loop streets as bike boulevards with Class III sharrows that are painted green or Class II bike lanes where appropriate;
- Improve existing railroad crossings to accommodate bicycle and pedestrian travel;
- Establish branding materials for the Belmont Village Loop to be used throughout the Village; and,
- Provide consistent wayfinding elements using the Belmont Village Loop branding at key destinations and along the corridor.

Policy 3.2-2 Improve facilities to encourage more bicycle and pedestrian travel. Improvements should include, but are not limited to:

- Provide on-street bike racks along streets within the Planning Area;
- Widen sidewalks within the Planning Area to accommodate two-way pedestrian movement and allow sufficient space for pedestrian amenities and street furnishings;
- Provide pedestrian-scaled lighting along streets and within public spaces throughout the Planning Area; and,
- Incorporate bicycle detection into existing signals.

CORRIDOR IMPROVEMENTS

The following provides a summary of proposed improvements along the corridors within Belmont Village. Intersection improvements follow. These improvements contribute to creation of the Belmont Village Loop but also address additional segments and intersections within the Planning Area to improve safety and connectivity amongst existing and proposed development. **All conceptual improvements (including precise location and dimensions) are subject to refinement based on available right of way and traffic operations.**

Twin Pines Lane

Twin Pines Lane from Ralston Avenue to Cottage Lane currently serves as a north-south access to the City Hall, Twin Pines Park, and Twin Pines Senior and Community Center parking lots. The street will continue to provide a connection to these facilities and an improved and consolidated parking area. Sidewalks and shared pavement markings should be installed to improve circulation, access, and connections for pedestrians and bicycles in the area.

Policy 3.2-3 Make improvements to Twin Pines Lane to ensure it continues to serve as a north-south local access road and to enhance circulation and access. Improvements to be considered should include, but are not limited to, installing sidewalks and shared pavement markings.

Sixth Avenue

From Hill Street to O'Neill Avenue, Sixth Avenue will serve as a north-south Main Street, providing access to the Village Core mixed uses, including residential, retail and commercial uses. The street is proposed to include narrow travel lanes, wide sidewalks with trees and landscaping, pedestrian-scale street lights and amenities, on-street parking, and the bike boulevard/Belmont Village Loop designation.

Between Hill Street and Waltermire Street, Sixth Avenue is currently oversized for existing and projected traffic levels, providing opportunity for a range of re-design approaches. Figure 3-7 shows existing conditions on Sixth Avenue at the intersection with Emmett Street. Figure 3-8 depicts a conceptual option for its redesign, which also includes improvement of an Emmett Street extension (see detailed discussion below) to Twin Pines Park. The design shows a median island with pedestrian crossing refuge, and a widened sidewalk and retail frontage along the east side of the street. In both options, existing sidewalks should be widened from Ralston Avenue to Waltermire Street to accommodate additional space for walking, landscaping, pedestrian amenities, and bike parking. All conceptual improvements (including precise location and dimensions) are subject to refinement based on available right of way and traffic operations. Installation of all-way stop control, as depicted in Figure 3-8, would be subject to operational analysis.

Sixth Avenue from Waltermire Street to O'Neill Avenue will continue to have narrow travel lanes, the bike boulevard/Belmont Village Loop designation, and sidewalks. No improvements are required for this section of Sixth Avenue.

FIGURE 3-7: EXISTING CONDITIONS ON SIXTH AVENUE AT EMMETT STREET

Streetscape Elements:
1) Narrow/missing sidewalk ± 8'0"
2) Surface Parking
3) No pedestrian crossings
4) Existing street trees, excess roadway
5) Indirect connection to park

FIGURE 3-8: CONCEPT IMPROVEMENTS FOR SIXTH AVENUE AT EMMETT STREET

1) Sidewalks widened with setback
2) Median refuge and corner bulb-out for traffic calming
3) Additional street trees
4) Bike sharrow designations
5) Emmett Ave streetscape extension to park
6) Village infill development
7) Pedestrian-oriented street lights
8) Expanded plaza frontage at City Hall

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved.

Policy 3.2-4 Improve Sixth Avenue between Hill Street and Waltermire Street to better serve the Village Core as a Main Street and as part of the Belmont Village Loop. Improvements to be considered include, but are not limited to, the following:

- Narrow vehicle travel lanes to calm traffic;
- Add Bike Boulevard/Belmont Village Loop sharrows and signage to designate a Class III bike route;
- Retain on-street parking for cars;
- Add three crosswalks at the intersection of Emmett Street, as depicted in Figure 3-8;
- Widen existing sidewalks between Ralston Avenue and Waltermire Street;
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, and other amenities on the widened sidewalks; and,
- Near the intersection of Emmett Street, add either a median with pedestrian crossing refuge to the center of Sixth Avenue, as depicted in Figure 3-8, or a widened linear plaza with landscaping in front of City Hall along Sixth Avenue.

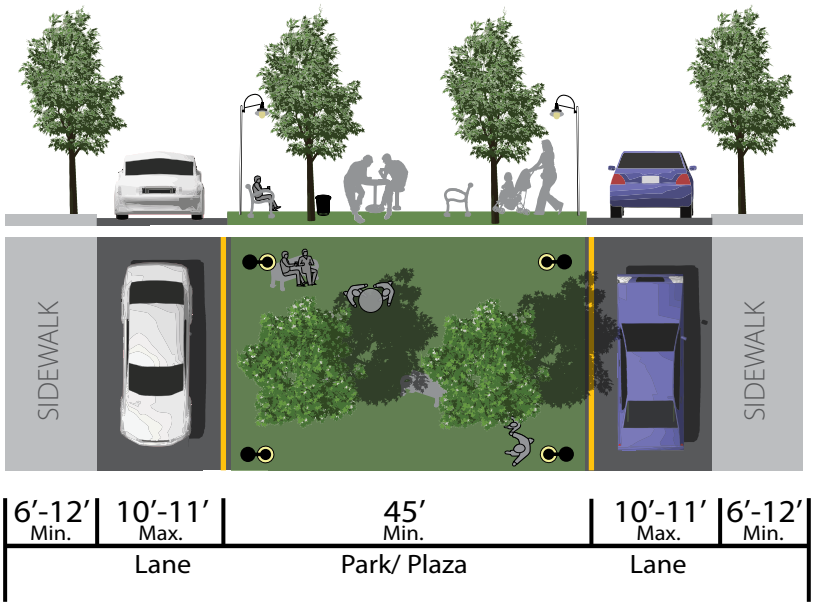
Policy 3.2-5 Consider installation of an all-way stop control at Emmett Street and Sixth Avenue, based on analysis of operations and performance relative to City of Belmont traffic control warrants.

Fifth Avenue

The extension of Fifth Avenue through the Village Core is an important placemaking and mobility element of the Plan. However, its ultimate configuration and access controls (for vehicles, pedestrians, etc.) are subject to further study and refinement.

As the center of activity and the retail heart of Belmont Village, Fifth Avenue will serve as a north-south Main Street from Flashner Lane to Broadway. Currently, as shown in Figure 3-10, Fifth Avenue is formally limited in extension from Broadway to Waltermire Street; it continues as an access drive across the Safeway parcel to Emmett Street, before ending in a parking lot between Emmett and Ralston Avenue. The new extension of the street from Waltermire Street to Flashner Lane and street improvements will be determined in conjunction with new private development that occurs on the properties along the length of Fifth Avenue. Ultimately, extended length, narrow lanes, ample sidewalks with trees and landscaping, pedestrian amenities and pedestrian-scale street lighting, and on-street parking will provide access to the vibrant center of the Village Core, as shown in Figure 3-11.

FIGURE 3-9: POTENTIAL FIFTH AVENUE CROSS SECTION (BETWEEN EMMETT AND WALTERMIRE)



Fifth Avenue from Flashner Lane to Ralston Avenue and from Ralston Avenue to O'Neill Avenue may have raised parking or be a raised roadway (shared street or woonerf treatment) that accommodates flexible use of the street, including farmers markets and outdoor dining or planters in place of on-street parking. Special paving should be used to highlight this as a unique street extending the entire length of the Fifth Avenue corridor from Broadway to Flashner Lane, including across its intersection with Ralston Avenue. This segment will be part of the Belmont Village Loop for pedestrians and should include appropriate branding and wayfinding.

The block of Fifth Avenue between Emmett and Waltermire streets is a high priority location for creation of a public park or plaza. Depending on the ultimate design of redeveloped properties along this stretch of roadway, the plaza may be provided adjacent to the roadway or in the median, as shown in Figure 3-9.

Fifth Avenue currently has bike lanes south of Broadway and no designated bike facilities north of Broadway. The segment between Broadway and O'Neill Avenue should either be designed with bike lanes and parallel parking (consistent with the treatment south of Broadway) or designed with shared lane markings and back-in angled parking instead of head-in angled parking.

Pedestrian scale lighting will improve safety and comfort in the Village Core.

FIGURE 3-10: EXISTING CONDITIONS FROM FIFTH AVENUE AT EMMETT STREET TO RALSTON AVENUE

FIGURE 3-11: CONCEPT IMPROVEMENTS FOR FIFTH AVENUE FROM EMMETT STREET TO RALSTON AVENUE

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved. The Fifth Avenue and Ralston Avenue intersection design as pictured above is only one of several options, and the ultimate design of this intersection will be subject to future operational analysis.

Policy 3.2-6 Pursue creation of the Fifth Avenue extension between Waltermire Street and Flashner Lane through dedication or acquisition of right of way, or other appropriate means. Any extension of Fifth Avenue across Ralston Avenue must not worsen vehicular traffic congestion on Ralston Avenue between Sixth Avenue and El Camino Real above *de minimus* levels. *See also Policy 2.1-12 in the Land Use chapter.*

Policy 3.2-7 Make improvements to Fifth Avenue between O'Neill Avenue and Flashner Lane so that it functions as the retail heart of the Village and a Main Street that is part of the Belmont Village Loop. Improvements to be considered include, but are not limited to, the following:

- Install a raised roadway (also known as a shared street or woonerf) with special paving to accommodate flexible use of the street. This treatment should apply to the extension between Flashner and Ralston on the north side and between Ralston and Emmett or Waltermire on the south side, with special paving extending across the Ralston Avenue/Fifth Avenue intersection;
- Create narrow vehicle travel lanes in new rights-of-way, though restricting vehicular access along part of the extension may also be considered;
- Allow on-street parking when special events are not taking place;
- Widen sidewalks; and,
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, benches, and other amenities on the widened sidewalks.

Policy 3.2-8 Add Class III bicycle signage and supporting facilities to Fifth Avenue between Broadway and O'Neill Avenue.

Policy 3.2-9 Require provision of a public plaza along the block of Fifth Avenue between Waltermire and Emmett streets. The plaza should be located either in the roadway median, with a single vehicular travel lane (and Class III bike facilities) on each side; or along one side of the roadway. Other design considerations for the plaza and adjacent roadway include:

- Ensure a minimum plaza width of 45 feet
- Removal of on-street parking on one or both sides of the block to accommodate the plaza

FIGURE 3-12: EXISTING CONDITIONS AT EL CAMINO REAL AND RALSTON AVENUE INTERSECTION

Streetscape Elements:
1) Narrow sidewalk ± 8'0"
2) Long pedestrian crossings (100')
3) Existing street trees
4) Highway type street lights

FIGURE 3-13: CONCEPT IMPROVEMENTS AT EL CAMINO REAL AND RALSTON AVENUE INTERSECTION

1) Boulevard bike/pedestrian way
2) Median refuges and corner bulb-out to shorten street crossing distance
3) Additional street trees
4) Pedestrian-oriented lights

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved.

- Provision of ample high quality landscaping, lighting, street furniture, and public art. *See also Policy 5.8-3 in the Infrastructure and Public Services chapter.*

El Camino Real

El Camino Real from Middle Road to Harbor Boulevard will serve as a north-south Boulevard. El Camino Real will continue to function as a major connection between Belmont and neighboring communities, with higher automobile volumes, including buses. Complete pedestrian and bicycle connections will be provided, with a focus on improving access to transit, including Caltrain and bus service. PHB or full traffic signals should be installed at crossings as specified under intersection improvements along the corridor; specific intersection improvements along El Camino Real are described in more detail below.

Figure 3-12 shows existing conditions along El Camino Real at the intersection with Ralston Avenue. Given the high vehicle speeds and traffic and frequency of transit service, a separated bikeway is recommended; however, even with additional buffers or separation, this corridor may be uncomfortable to some bicyclists. Per the Ralston Avenue Corridor Study, and as depicted in Figure 3-13, a grade separated multi-use path is recommended along the easterly frontage of El Camino Real, along the Caltrain parking lot between O'Neill Avenue and Ralston Avenue. This Class I path would link the proposed O'Neill pedestrian/bicycle undercrossing to the Caltrain Station. It would be developed by reconfiguring excess roadway/curbside parking area, and/or replacing the existing parking edge planting area with paving and shade trees. Coordination with SamTrans and the Peninsula Corridor Joint Powers Board (JPB) would be required for renovations to the Caltrain parking frontage. A parallel bicycle route (such as Old County Road, as discussed below) should also be improved to help accommodate bicyclists of all abilities along the north-south corridor.

Policy 3.2-10 Enhance El Camino Real to better serve as a Boulevard and major connection for all modes of transportation, including pedestrians and bicyclists.

Policy 3.2-11 Partner with SamTrans and the Peninsula Corridor Joint Powers Board to install a grade-separated multi-use pathway along the easterly frontage of El Camino Real, near the Caltrain parking lot, between O'Neill Avenue and Ralston Avenue. Ensure the pathway is connected to the O'Neill pedestrian/bicycle undercrossing once it is constructed.

Old County Road

Old County Road will serve as a north-south Avenue, with a focus on utilizing the lower volume roadway as a major north-south connector for bicycles and as an alternative to El Camino Real. The Bicycle Plan (Figure 3-5) shows potential Class III bicycle facilities along the length of Old County Road; however, where sufficient space exists, Class II bike lanes, on-street parking, and sidewalks should be provided along with vehicle travel lanes. Painted buffers should be added to bike lanes if there is sufficient space. Where segments are not sufficiently wide for bike lanes, bike routes with greenback sharrows and signage should be provided. Appropriate transitions (including striping and signage) should be provided where the roadway transitions between bike lanes and bike routes.

A Class I off-street shared path is proposed on the west side of the roadway between Masonic Way and Ralston Avenue. This path would facilitate pedestrian and bicycle access between Masonic Way, Caltrain and a new crossing at El Camino Real/Hill Street, and Ralston Avenue.

Policy 3.2-12 Improve Old County Road to better serve the Planning Area as an Avenue focused on north-south vehicular and bicycle connectivity. Improvements to be considered include, but are not limited to, the following:

- Provide on-street parking and sidewalks;
- Provide bike lanes with painted buffers where sufficient right-of-way space is available;
- Provide greenback sharrows and signage where sufficient right-of-way space is unavailable for bike lanes; and,
- Create a Class I off-street shared multi-use path along the western side of Old County Road between Masonic Way and Ralston Avenue as part of the new Belmont Village Loop.

Policy 3.2-13 As feasible, underground utilities along Old County Road as roadway and streetscape improvements are made. *See also Policy 5.3-2 in the Infrastructure and Public Services chapter.*

Hill Street

Hill Street from Sixth Avenue to El Camino Real will be an east-west Main Street and serve as a bicycle connection between the Village Core and Caltrain, with intersection improvements at El Camino Real (discussed below). The street will include sidewalks, on-street

parking, the bike boulevard/Belmont Village Loop designation, greenback sharrows, and narrow travel lanes. While being an important connection, Hill Street will not be appropriate for all cyclists due to its relatively steep grade. This condition further emphasizes the need for a complete network of bicycle connections and facilities on parallel and perpendicular streets, particularly around the Caltrain station, to ensure access for travelers of all abilities.

Intersection improvements at Hill Street and El Camino Real include curb extensions and median refuge islands to improve pedestrian connection in Belmont Village.

Policy 3.2-14 Make improvements to Hill Street so that it functions as an east-west Main Street and part of the Belmont Village Loop. Improvements to be considered include, but are not limited to, the following:

- Provide on-street parking and sidewalks (in order to improve pedestrian conditions, wider sidewalks may be substituted for on-street parking on one or both sides of the street);
- Narrow existing vehicle travel lanes; and,
- Add Bike Boulevard/Belmont Village Loop sharrows and signage to designate a Class III bike route.

Flashner Lane

Flashner Lane from Sixth Avenue to El Camino Real is a new east-west Main Street that will provide access to Village Core uses and improve the northwest side's connection to Caltrain. Currently, Flashner Lane is a discontinuous access drive, with driveways off of both El Camino Real and Ralston Avenue that end in parking lots. Once fully extended, Flashner Lane will connect with the new extension of Fifth Avenue across Ralston Avenue, as a key part of the Belmont Village Loop for pedestrians. The new street will include sidewalks, on-street parking, and narrow travel lanes.

Policy 3.2-15 When redevelopment of the block bounded by Ralston Avenue, Hill Street, El Camino Real, and Sixth Avenue occurs, require dedication of right-of-way to fully extend Flashner Lane between Sixth Avenue and El Camino Real.

Policy 3.2-16 Make improvements to Flashner Lane so that it functions as a Main Street and part of the Belmont Village Loop for pedestrians. Improvements to be considered include, but are not limited to, construction of sidewalks, on-street parking, and narrow vehicle travel lanes.

A Class I bicycle path, pictured above, is proposed between Masonic Way and Ralston Avenue.

Masonic Way

Masonic Way from Old County Road to Hiller Street is an east-west Main Street that serves as an alternate route to Ralston Avenue for pedestrians and bicyclists, and will include sidewalks, on-street parking, and narrow shared travel lanes for bicycles and vehicles. This street connects the Caltrain station and the US Route 101 overcrossing. This street will include the bike boulevard/Belmont Village Loop designation for bicyclists. Additional wayfinding and branding should be considered to better connect the US Route 101 overcrossing to the Caltrain station and Village Core.

New crosswalks should be provided for new development, including a new public space. Due to the narrow right-of-way and on-street parking, there is not sufficient space to widen the existing bike lanes to widths that would comply with best practices for safety. Therefore, these existing bike lanes should be evaluated. If existing Class II lanes are removed, they should be replaced with Class III markings and the bike boulevard/ Belmont Village Loop designation. Additional pedestrian-scale lighting should be provided along the corridor. New bulbouts may be provided at intersections and throughout the corridor to provide for additional landscaping and gathering space.

Policy 3.2-17 Improve Masonic Way to better serve the Station Core as a Main Street and as part of the Belmont Village Loop. Improvements to be considered include, but are not limited to, the following:

- Narrow vehicle travel lanes to calm traffic;
- Retain on-street parking for cars;
- Add Bike Boulevard/Belmont Village Loop signage;
- Provide signage and wayfinding information;
- Add crosswalks and new public spaces as appropriate when new development occurs;
- Install new bulbouts at intersections and throughout the corridor where right of way width allows; and,
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, and other amenities on the sidewalks.

Policy 3.2-18 Ensure that Masonic Way remains an important bicycle connection, either through retention of existing Class II bike lanes or replacement with Class III signage and sharrows. The appropriate bicycle facility type should be based on existing and projected bicycle volumes, safety considerations, and any changes to roadway design that accompany potential redevelopment of properties fronting the corridor.

Ralston Avenue

Ralston Avenue from Twin Pines Park to Hiller Street is a major east-west Boulevard linking the Village Core to neighborhoods and regional destinations. It will continue to serve as an important connection for mobility, with higher automobile volumes, including buses. Wide pedestrian facilities with landscaping and pedestrian amenities between Sixth Avenue and El Camino Real will replace on-street parking. East of Old County Road, a raised and landscaped median along with widened pedestrian facilities with pedestrian amenities, additional landscaping, and driveway consolidation will enhance the existing condition into a more pedestrian-friendly and traffic-calmed corridor.

Class I Path from South Road to Twin Pines Park

A new Class I path would be provided in Twin Pines Park from South Road to Twin Pines Lane, providing a connection to the Belmont Village Loop via Emmett Street and Sixth Avenue. This path will serve as an alternate route to Ralston Avenue for pedestrians and bicyclists west of Sixth Avenue and, with the completion of the Belmont Village Loop north of Ralston, will provide parallel access to the Caltrain station and US Route 101 overcrossing. Wayfinding will be provided to direct pedestrians and bicyclists.

Ralston Avenue Underpass between El Camino Real and Old County Road

Existing paths under the Caltrain tracks should be widened to 12 to 14 feet to better accommodate a shared use path for pedestrians and bicyclists. Additional pedestrian-scaled lighting should be provided. Crossbike crossings of Ralston Avenue will be provided at the El Camino Real and Old County Road intersections.

Policy 3.2-19 Enhance Ralston Avenue as an east-west Boulevard to better serve as a major connection for all modes of transportation, including pedestrians and bicyclists. Improvements to be considered include, but are not limited to, the following:

- Provide a new Class I multi-use path in Twin Pines Park from South Road to Twin Pines Lane, which will serve as an alternate route to Ralston Avenue for pedestrians and bicyclists west of Sixth Avenue and provide a connection to the Belmont Village Loop, the Caltrain station, and US Route 101 overcrossing;
- Replace on-street parking on Ralston Avenue between Sixth Avenue and El Camino Real with wide pedestrian facilities, landscaping, benches, pedestrian-scaled lighting, and other pedestrian amenities;

- Potentially add a new crosswalk across Ralston for the extended Fifth Avenue (see details under Fifth Avenue policy);
- Add pedestrian-scaled lighting and widen existing paths under the Caltrain tracks to 12 to 14 feet to better accommodate pedestrians and bicyclists;
- Install crossbike crossings at El Camino Real and Old County Road intersections; and
- Provide a raised and landscaped median and consolidate driveways on Ralston Avenue between Old County Road and Hiller Street.

Emmett Street

Emmett Street is an east-west Main Street that provides a connection from the Village Core to the Civic Center, with City Hall, Twin Pines Park, and Twin Pines Senior and Community Center. Currently, Emmett Street's formal western end is at Sixth Avenue, and an access drive with parking areas continues to the west towards the civic facilities. This access drive should be improved as a formal extension of Emmett Street to the west, from Sixth Avenue to the proposed Twin Pines Park Class I path. This extension of Emmett Street will create a consistent path for pedestrians, bicyclists, and motorists as a direct connection to these civic services from El Camino Real. Improvements should include reconfiguration of the driveway entrance from Sixth Avenue and internal driveway areas to function as a continuation of Emmett Street. Bordering parking stalls should be relocated to allow for construction of continuous sidewalks to the Park, with Village streetscape lighting, street trees, special paving, and other amenities. Sidewalks and shared lane markings should be installed to improve circulation, access, and connections for pedestrians and bicycles in the area.

Although not part of the Belmont Village Loop, Emmett Street provides a direct connection from the west (Twin Pines Park and Ralston Avenue) to the Village Core and the Belmont Village Loop. Given the direct connection, additional wayfinding, pedestrian amenities (including pedestrian-scale lighting, street trees, and benches), bike boulevard designation, and intersection traffic calming measures should be considered. While it is important that Emmett Street be improved in this manner, significant traffic calming measures must also be incorporated to discourage drivers from using this segment of roadway to bypass Ralston Avenue.

Sidewalks along Emmett Street are narrow and do not allow for clear and unobstructed pedestrian travel. Emmett Street is located in the core of the Belmont Village and is a central east-west route within Belmont Village. Sidewalks should be wider and include a street furniture zone and space for planters.

Policy 3.2-20 Extend Emmett Street as a Main Street from Sixth Avenue to the proposed Twin Pines Park Class I path to create a direct connection between the Civic Center and the Village Core. Improvements to be considered include, but are not limited to, the following:

- Reconfigure the entrance from Sixth Avenue and the current internal driveway to function as a continuation of Emmett Street;
- Relocate bordering parking stalls;
- Provide wide sidewalks and shared lane markings;
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, and other amenities on the sidewalks;
- Incorporate traffic calming measures to discourage use of Emmett Street as an alternative or "bypass" to Ralston Avenue; and
- Provide entryway signage and wayfinding indicating the connection to Twin Pines Park.

Policy 3.2-21 Improve Emmett Street as a Main Street and key east-west connection in the Village Core between El Camino Real and Sixth Avenue. Improvements to be considered include, but are not limited to, the following:

- Widen sidewalks to accommodate street furniture and planters;
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, and other amenities on the sidewalks;
- Provide bike boulevard designation with green sharrows; and,
- Install intersection traffic calming measures as needed.

Waltermire Street

Waltermire Street from Sixth Avenue to El Camino Real is an east-west Main Street with wide sidewalks and landscaping, pedestrian amenities, on-street parking, and travel lanes. Between Sixth Avenue and Fifth Avenue, this is currently a one-way (eastbound) street for bicyclists and

motorists, and includes angled parking on the north side. This segment will be reconfigured to accommodate two-way travel, parallel parking, and wider sidewalks with additional landscaping and pedestrian amenities.

Policy 3.2-22 Ensure Waltermire Street serves the Village Core as a Main Street providing east-west connectivity. Improvements to be considered include, but are not limited to, the following:

- Reconfigure the segment of Waltermire Street between Sixth Avenue and Fifth Avenue to accommodate two-way travel with parallel parking and wide sidewalks;
- Provide Class III sharrows; and,
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, and other amenities on the sidewalks.

O'Neill Avenue

O'Neill Avenue is proposed as a Main Street and generally consists of sidewalks, on-street parking, and one travel lane in each direction. O'Neill Avenue does not cross the Caltrain tracks; however, a proposed connection will allow for pedestrians and bicyclists to cross between El Camino Real and Old County Road via a new tunnel under the Caltrain tracks, as described below. O'Neill Avenue is proposed to include narrow travel lanes, sidewalks with trees and landscaping, pedestrian-scale street lights and amenities, on-street parking, and the bike boulevard/Belmont Village Loop designation.

This street serves as the southern connection in the Belmont Village Loop and will serve as a southern alternative route to Ralston Avenue once the proposed tunnel at the Caltrain tracks and Class I path at Twin Pines Park are constructed. The City should conduct a traffic study to verify vehicle speeds and volumes on O'Neill Avenue between Old County Road and Hiller Street.

Policy 3.2-23 Improve O'Neill Avenue as a Main Street providing east-west connectivity between the eastern and western portions of the Village. Street improvements to be considered include, but are not limited to, the following:

- Narrow vehicle travel lanes to calm traffic;
- Provide on-street parking for cars;
- Provide wide sidewalks where feasible;
- Add Bike Boulevard/Belmont Village Loop sharrows and signage to designate a Class III bike route;

- Provide signage and wayfinding information; and,
- Provide trees, landscaping, pedestrian-scale street lights, bike parking facilities, and other amenities on the sidewalks.

Policy 3.2-24 Conduct a traffic study to verify vehicle speeds and volumes on O'Neill Avenue between Old County Road and Hiller Street to determine feasible and appropriate improvements and traffic calming measures.

O'Neill Railroad Undercrossing

Enhancing connections between the east and west sides of the Village and between the Village center and the Harbor Industrial Area are fundamental to the Specific Plan's economic development and land use strategy. The proposed undercrossing should incorporate segregated bicycle and pedestrian paths, and connect directly to the El Camino Bike/Pedestrian Way along the El Camino Real eastern frontage. The undercrossing project would require acquisition of the property and relocation of the existing business on the east side of railroad, and coordination with Caltrain and the Joint Powers Board for renovations to the adjacent Caltrain parking area, access drive, and frontage.

The City should conduct a feasibility study for the pedestrian and bicycle tunnel under the Caltrain tracks. The study should determine if there is adequate width and sufficient clearance for bicyclists and pedestrians in an at-grade tunnel under the existing elevated berm for the Caltrain, or if excavation will be necessary below grade to ensure sufficient clearance in the new tunnel. The feasibility study should also strive to understand potential impacts to existing private properties.

Policy 3.2-25 Provide a new, well-lit and attractively designed railroad undercrossing at O'Neill Avenue for pedestrians and bicyclists to reconnect the east and west side of the street. Conduct a feasibility study to determine the optimal design and configuration of the undercrossing and to understand impacts to adjacent affected properties.

Photo: Steven Grover & Associates

A pedestrian and bicycle undercrossing of the Caltrain tracks, like this one in Palo Alto, will greatly improve access between the two sides of the Village.

INTERSECTION IMPROVEMENTS

The following provides a summary of proposed improvements at intersections within Belmont Village. All conceptual improvements (including precise location and dimensions) are subject to refinement based on available right of way and traffic operations.

FIGURE 3-14: EXISTING CONDITIONS AT HILL STREET AND EL CAMINO REAL INTERSECTION

Streetscape Elements:
1) Narrow sidewalk ± 6'
2) Missing pedestrian crossings
3) Existing conifer trees
4) Excess Roadway
5) Highway type street lights
6) Continuous Median
7) Unused Plaza/Park

FIGURE 3-15: CONCEPT IMPROVEMENTS AT HILL STREET AND EL CAMINO REAL INTERSECTION

1) Sidewalks widened with building setback
2) New signalized pedestrian crossing
3) Median refuge to shorten exposed crossing distance
4) Additonal street trees
5) Pedestrian-oriented street lights
6) Rain garden tree wells
7) Deciduous trees to replace conifers
8) Transit plaza w/ vendors & pedestrian activity
9) Village infill development

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved.

Hill Street and El Camino Real

Hill Street is part of the Belmont Village Loop, and a safe and direct crossing at El Camino Real to and through the Caltrain Station is an essential element of the Specific Plan. This new intersection crossing would connect the Village Core to the Caltrain Station and the US Route 101 overcrossing. Existing conditions at the intersection are shown in Figure 3-14, while conceptual improvements are shown in Figure 3-15. The proposed Hill Street crossing will minimize disruption to through traffic along El Camino Real to the extent feasible while maintaining safety and convenience for those accessing the station on foot. Installation of a PHB signal will be necessary to achieve safe and effective connectivity in the Planning Area and can be integrated into a signal coordination scheme with traffic signals at El Camino Real/ Middle Road and El Camino Real/Ralston Avenue.

Additional improvements include reconfiguration of the existing median to provide a bicycle/pedestrian refuge and improved visibility, and reconfiguration of a portion of the SamTrans bus drive and frontage sidewalk to receive the new crossing. The addition of curb extensions and median refuge islands will shorten crossing distances and provide waiting space while crossing the large right-of-way.

Special consideration will be needed to accommodate two-way bicycle travel. Additional wayfinding and branding would help direct people from the designated crossing location to destinations on either side.

Policy 3.2-26 Enhance connectivity between the Village Core and the Caltrain Station by providing a new crossing for bicyclists and pedestrians on El Camino Real at Hill Street. The intersection crossing should consider, but is not limited to, the following improvements:

- A traffic signal to achieve safe and effective connectivity;
- Curb extensions and median refuge islands to shorten the crossing distance and provide waiting space while crossing;
- Removal of evergreen trees in the existing median to the extent necessary to accommodate the refuge island and improve visibility;
- Accommodation of two-way bicycle travel with a crossbike and/or clear signage; and,
- Additional wayfinding and branding to direct travels from the designated crossing location to destinations on either side.

FIGURE 3-16: EXISTING CONDITIONS AT EMMETT STREET AND EL CAMINO REAL INTERSECTION

Streetscape Elements:
1) Narrow sidewalk ± 8'0"
2) Surface parking frontages
3) No pedestrian crossings
4) Existing street trees
5) Excess roadway

FIGURE 3-17: CONCEPT IMPROVEMENTS AT EMMETT STREET AND EL CAMINO REAL INTERSECTION

1) Boulevard bike/pedestrian way
2) Wider medians and corner bulb-out for traffic calming
3) Median refuges to shorten crossing distance
4) Additional street tree
5) Pedestrian-oriented street lights
6) New signalized pedestrian crossing
7) New Vine-Laden Fencing to buffer public parking

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved.

Emmett Street and El Camino Real

As a direct connection between the Village Core, Twin Pines Park, and the Caltrain Station, Emmett Street will have a new crossing across El Camino Real. Figure 3-16 shows existing conditions at the intersection, while Figure 3-17 shows conceptual improvements. At the intersection of Emmett Street and El Camino Real, vehicles are only permitted to turn right onto El Camino Real. This location is identified for traffic calming strategies and crossing improvements. A PHB, median refuge, and crossbike across the north leg is proposed, consistent with recommendations in the Ralston Avenue Corridor Plan for this intersection.

Policy 3.2-27 Improve east-west connectivity and accessibility by providing a new crossing for pedestrians and bicyclists across El Camino Real at Emmett Street. The intersection crossing should consider, but is not limited to, the following improvements:

- A pedestrian hybrid beacon or full signal to achieve safe and effective connectivity;
- Median refuge island; to shorten the crossing distance and provide waiting space while crossing;
- Accommodation of two-way bicycle travel with a crossbike and/or clear signage; and,
- Additional wayfinding and branding to direct travels from the designated crossing location to destinations on either side.

Two-stage turn queue boxes are an example of intersection bicycle markings that can improve safety for cyclists.

Emmett Street and Sixth Avenue

The intersection of Sixth Avenue and Emmett Street is a key link between the Village center, City Hall, and Twin Pines Park. Traffic calming strategies at Sixth Avenue/Emmett Street include all-way stop-control, intersection bike markings, and improved pedestrian crossings with bulbouts and high visibility crosswalks. Existing and proposed improvements are conceptually illustrated in Figures 3-7 and 3-8, which are shown previously under the description of improvements for Emmett Street.

Policy 3.2-28 Enhance connectivity and safety between the Village Core and the Civic Center by improving the Sixth Avenue and Emmett Street intersection. Improvements to be considered include, but are not limited to, the following:

- All-way stop signs;
- Intersection bicycle markings;
- Three new high-visibility crosswalks; and,
- Bulbouts and median refuges to shorten the crossing distances and improve visibility.

Ralston Avenue and Sixth Avenue

This intersection will include high visibility crosswalks and cross-bike markings to increase visibility. Bicycle detection and pedestrian countdown timers would further enhance pedestrian and bicycle travel. Bulbouts should be provided in place of on-street parking.

Policy 3.2-29 Improve the Sixth Avenue and Ralston Avenue intersection to facilitate bicycle and pedestrian circulation and safety. Improvements to be considered include, but are not limited to, the following:

- Signal bicycle detection;
- Crossbike markings;
- Green intersection bicycle markings;
- Bulbouts to shorten crossing distances and improve visibility;
- High-visibility crosswalks; and,
- Countdown timers at crossings.

Ralston Avenue and Fifth Avenue

Figure 3-18 shows existing conditions at Ralston Avenue and Fifth Avenue. Allowing for safe movement of pedestrians across Ralston Avenue at Fifth Avenue is a high priority for the Belmont Village Specific Plan, as it will allow for the two sides of the Village Core to be more closely and safely linked. However, vehicular congestion along the segment of Ralston Avenue between El Camino Real and Sixth Avenue is high, and it is compounded by multiple turning movements in and out of existing driveways. Two possible configurations are proposed for this intersection:

1. A fully signalized intersection, with both vehicles and pedestrians allowed to cross Ralston at Fifth Avenue (Figure 3-19)
2. Allowing only right-in/right-out vehicular movement at Fifth Avenue, with a traffic signal and high-visibility crosswalk with pedestrian refuge island provided across Ralston Avenue (Figure 3-20)

FIGURE 3-18: EXISTING CONDITIONS AT FIFTH AVENUE AND RALSTON AVENUE INTERSECTION

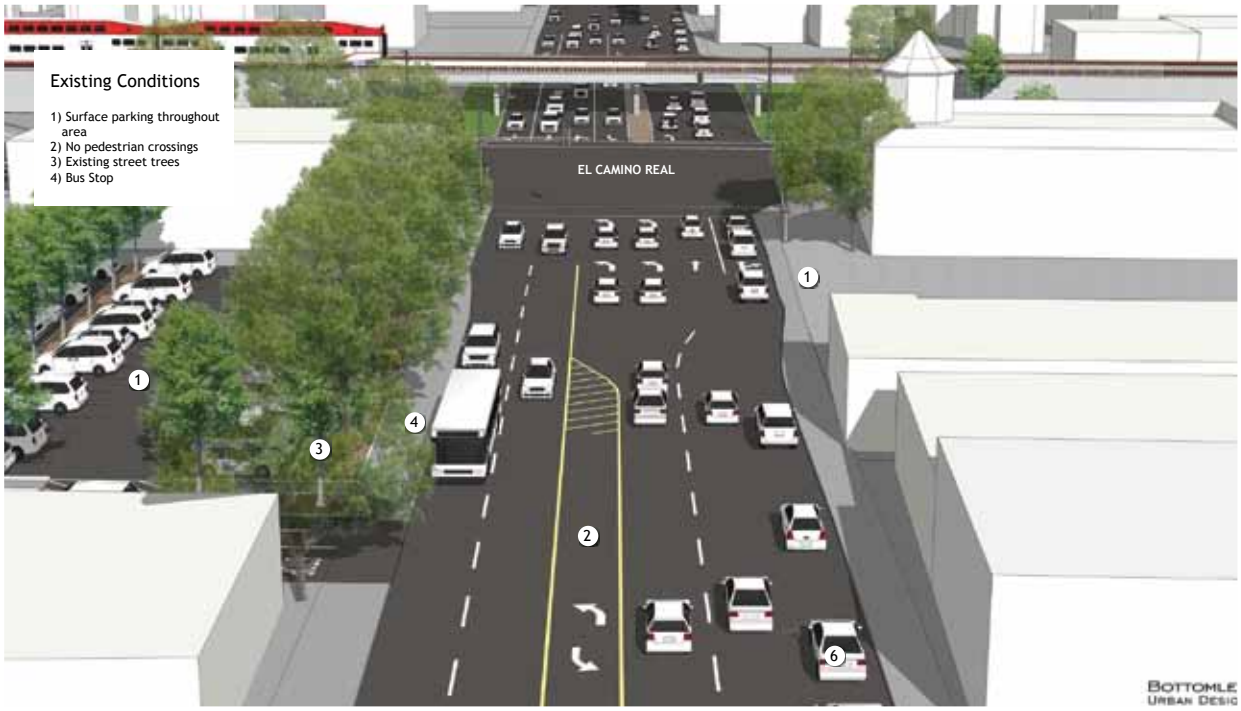


FIGURE 3-19: CONCEPTUAL IMPROVEMENTS AT FIFTH AVENUE AND RALSTON AVENUE INTERSECTION, OPTION 1 - FULL SIGNAL

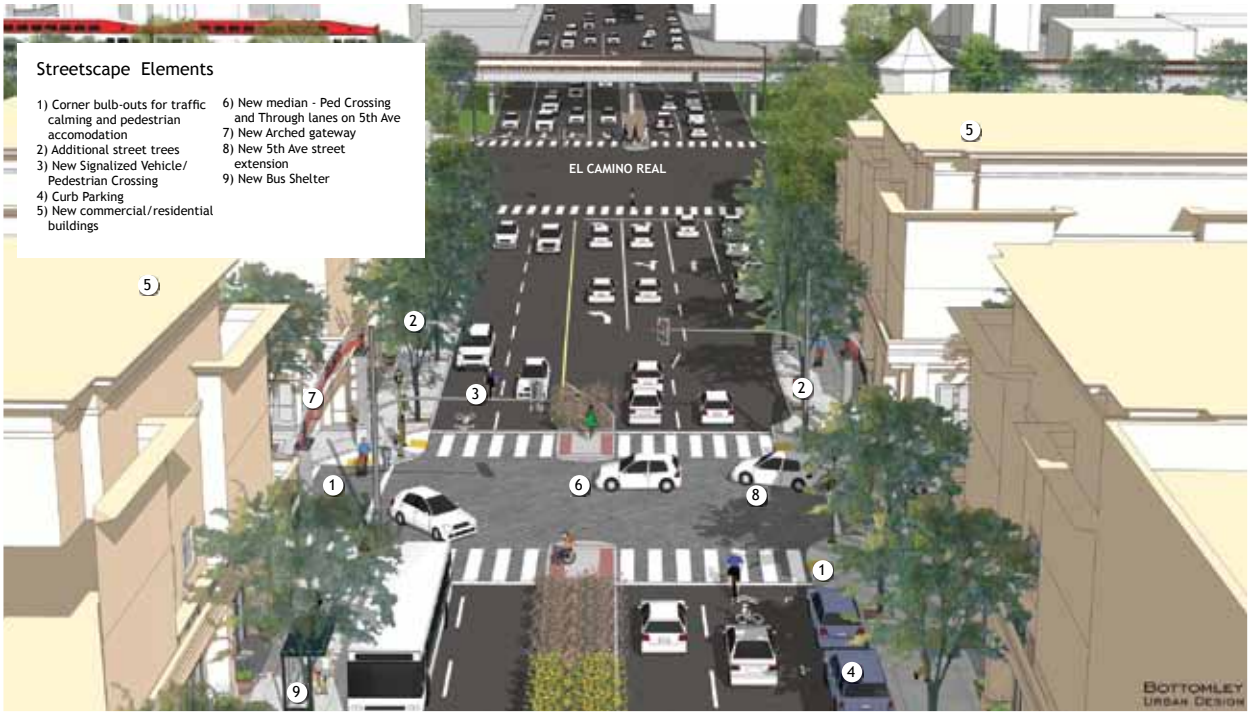


FIGURE 3-20: CONCEPTUAL IMPROVEMENTS AT FIFTH AVENUE AND RALSTON AVENUE INTERSECTION, OPTION 2 - SIGNAL WITH VEHICLE RIGHT-IN, RIGHT OUT ONLY

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved.

Policy 3.2-30 Create an intersection at Fifth Avenue and Ralston Avenue, allowing, at minimum, right-in/right-out vehicular movement. The final design of the intersection, and the nature and extent of pedestrian accommodations, will be based on results of additional study that analyzes the effects of allowing vehicular and/or pedestrian movement across Ralston Avenue on the performance of that roadway segment and the El Camino Real intersection. If it is determined that allowing pedestrians to cross Ralston Avenue is feasible and desirable, improvements should include, but are not limited to, the following:

- A traffic signal to achieve safe and effective connectivity;
- A pedestrian refuge island in the center of Ralston Avenue to enhance pedestrian safety; and
- Distinctive, highly visible pavement patterns, paint or markings, and/or raised crosswalk to maximize visibility of the crossing.

Ralston Avenue and El Camino Real

Shown previously in the chapter, Figure 3-12 shows existing conditions at the Ralston Avenue and El Camino Real intersection, while Figure 3-13 shows conceptual improvements to the intersection. One-way offstreet bicycle lanes are recommended along both sides of Ralston Avenue between El Camino Real and Old County Road (under the Caltrain underpass). Because the width of Ralston Avenue is constrained within this section, the offstreet bicycle paths provide bicyclists with an option to ride outside of the travel lanes. Because these paths would be designed as one-way, it would minimize the chance of conflict between two bicyclists; however, the paths would be shared with bidirectional pedestrian traffic, creating a potential for conflicts between bicyclists and pedestrians. Per the Ralston Avenue Plan, paths will be striped to designate pedestrian and bicycle travel areas. Additional intersection ramp improvements would be necessary to facilitate the transition between on-street and off-street bicycle facilities.

Policy 3.2-31 Improve the intersection at Ralston Avenue and El Camino Real to enhance bicycle and pedestrian access. Improvements to be considered include, but are not limited to, the following:

- Addition of a one-way offstreet bicycle lane for west-bound travel on the northern side of Ralston Avenue under the Caltrain underpass, between El Camino Real and Old County Road;

- Addition of a one-way offstreet bicycle lane for eastbound travel on the southern side of Ralston Avenue under the Caltrain underpass, between El Camino Real and Old County Road;
- Striping to designate pedestrian and bicycle travel areas under the Caltrain underpass; and,
- Intersection ramp improvements to facilitate the transition between on-street and offstreet bicycle facilities.

Ralston Avenue and Old County Road

It is recommended that all crosswalks at this intersection be upgraded with high-visibility crosswalk markings and the addition of crossbike markings on the west leg to improve visibility.

Policy 3.2-32 Upgrade all crosswalks to have high-visibility crosswalk markings at the intersection of Ralston Avenue and Old County Road, and add crossbike markings to the west leg to improve visibility of cyclists.

Ralston Avenue and Elmer Street

The existing uncontrolled pedestrian crossing of Ralston Avenue at Elmer Street should be upgraded to include a PHB, curb extensions, high visibility pavement markings and a center median pedestrian refuge area coupled with advanced warning signs. The improved markings would increase the visibility of pedestrians crossing the street, which is further improved with the PHB beacon that has been demonstrated to increase driver compliance at crosswalks.

Policy 3.2-33 Improve the pedestrian crossing at Ralston Avenue and Elmer Street to increase the visibility of pedestrians crossing the street. Improvements to be considered include, but are not limited to, the following:

- A traffic signal;
- Curb extensions;
- High visibility pavement markings;
- A center median pedestrian refuge area; and,
- Advanced warning signals.

Ralston Avenue and Hiller Street

This intersection is at a critical location on the Belmont Village Loop. The Ralston Avenue Corridor Study recommends that traffic signal timing at this intersection be modified to increase pedestrian crossing times giving slower pedestrians more time to complete their crossing. Depending on traffic demand, the longer pedestrian crossing time may result in a slight increase in intersection delay, but only at times when the pedestrian phase is activated.

To improve operations for bicyclists traveling northbound on Hiller Street, a bicycle loop detector should be added. This will allow bicyclists to trigger a 'green'-phase at the existing signal. High visibility crosswalks and crossbike markings should be provided.

Policy 3.2-34 Improve crossing at Ralston Avenue and Hiller Street to enhance pedestrian and bicyclist connectivity along the Belmont Village Loop. Improvements to be considered include, but are not limited to, the following:

- Longer pedestrian crossing times when the pedestrian phase is activated;
- Bicycle loop detector for bicyclists traveling northbound on Hiller Street;
- Add Bike Boulevard/Belmont Village Loop sharrows and signage to designate a Class III bike route along Hiller Street;
- High visibility crosswalks; and
- Crossbike markings.

Ralston Avenue ("Little Ralston" Avenue) and Granada Street

This intersection will be reconfigured to calm traffic on the Ralston Avenue frontage road ("Little Ralston" Avenue) between Granada Street and Hiller Street. The improvements would result in reduced traffic volumes on the south leg of "Little Ralston" Avenue/Hiller Street and provide improved crossing opportunities for pedestrians and bicyclists.

Policy 3.2-35 Reconfigure the intersection of Ralston Avenue ("Little Ralston" Avenue) between Granada Street and Hiller Street to reduce traffic volumes and provide crossing improvements for pedestrians and bicyclists. Improvements should include bulbouts and/or other traffic calming measures.

O'Neill Avenue and El Camino Real

Similar to the intersection of El Camino Real and Hill Street, this intersection is at a critical location in the Belmont Village Loop. The existing conditions of the O'Neill Avenue and El Camino Real intersection are shown in Figure 3-21. This intersection will be upgraded with enhanced pedestrian and bicycle crossings and infrastructure to connect to the proposed pedestrian and bicycle tunnel under Caltrain, as shown in Figure 3-22; the proposed tunnel is described in more detail under the O'Neill corridor improvements, above.

Similar to the crossing at Emmett Street, improvements would include reconfiguration of the existing median to provide a bicycle/pedestrian refuge and improved visibility. They also include reconfiguration of a portion of the SamTrans bus drive and frontage sidewalk to receive the new crossing on the eastern side of El Camino Real; the crossing would be directly connected to the El Camino Bike/Pedestrian Way. Crossbike marking, bicycle signal detection, high visibility crosswalks, pedestrian countdown timers, and improved wayfinding/branding will better accommodate pedestrian and bicycle circulation. Coordination with SamTrans and the Joint Powers Board would be required for renovation of the adjacent Caltrain parking area and frontage.

Policy 3.2-36 Improve crossing at El Camino Real and O'Neill Avenue to enhance pedestrian and bicyclist connectivity along the Belmont Village Loop. Improvements to be considered include, but are not limited to, the following:

- Upgrading the existing median to provide a bicycle and pedestrian refuge and improved visibility of pedestrians and bicyclists in the street;
- Wayfinding and branding for the Belmont Village Loop;
- Direct connections to the El Camino Real Bike/Pedestrian Way and the proposed O'Neill Railroad Undercrossing;
- Bicycle signal detector for bicyclists traveling on O'Neill Avenue;
- Pedestrian countdown timers;
- High visibility crosswalks;
- Crossbike markings; and,
- Reconfiguring the SamTrans bus drive and frontage sidewalk to receive the new crosswalk on the eastern side of El Camino Real.

FIGURE 3-21: EXISTING CONDITIONS AT O'NEILL AVENUE AND EL CAMINO REAL INTERSECTION

Streetscape Elements:
1) Narrow sidewalk ± 8'0"
2) Missing/long pedestrian crossings
3) Excess roadway
4) Caltrain parking

FIGURE 3-22: CONCEPT IMPROVEMENTS AT O'NEILL AVENUE AND EL CAMINO REAL INTERSECTION

1) Boulevard bike/pedestrian way
2) Wider medians and corner bulb-out for traffic calming
3) Median refuges and corner bulb-out to shorten street crossing distance
4) Additional street trees
5) Pedestrian-oriented lights
6) O'Neill Ave undercrossing
7) New signalized pedestrian crossing

Note: Illustrations are conceptual. Actual improvements may vary based on right of way dimensions and operational analysis but will still be considered consistent with the Specific Plan as long as connectivity objectives for each segment or intersection are achieved.

3.4 TRANSIT ACCESS

SAMTRANS

Service

SamTrans offers service throughout Belmont Village, to the Belmont Caltrain Station, and express routes that travel to neighboring cities.

SamTrans offers bus service, including Redi-Wheels and RediCoast paratransit service, to San Mateo County community members. SamTrans bus stops are generally spaced 1/4-mile apart, and located on the far-side of an intersection. Six bus routes provide access to Belmont Village and an additional four provide access directly to the Belmont Caltrain Station. Express and multi-city routes travel along El Camino Real and Mid-County routes along El Camino Real, Ralston Avenue, and Hiller Avenue.

El Camino Real service has approximately 15 minute headways, which is expected to remain for the foreseeable future. Ten or five minute headways could be appropriate with increases in ridership and density. Should bus rapid transit (BRT) be provided along El Camino Real, the Ralston Avenue stop would likely be included for the connection to the Belmont Village and Caltrain. SamTrans service to schools has been adequate and there are no plans to increase service.

SamTrans does not track ridership or stop boardings within the Planning Area; however, no major changes in ridership are expected within the Planning Area. SamTrans expects about one percent ambient growth system-wide; however, this would not be uniform in all areas.

SamTrans buses are equipped with exterior bike racks that accommodate two bikes, and is currently working to provide space for three bicycles. Two additional bikes are allowed inside the bus, depending on how much room is available. SamTrans does not guarantee that there will be space on a specific bus.

Bicycle and Pedestrian Connections

SamTrans bus stops are generally located along the sidewalk. The only bus turnout is located at the Caltrain station and no future turnouts are planned. SamTrans typically prefers that bus stops remain within the travel lane. Existing bus stops that do not include a shelter should be provided with a shelter or other protection from the elements within the Planning Area. Benches, trash/recycle receptacles, timetables, maps, and lighting should be provided and maintained at each stop within the Planning Area.

Should BRT be provided along El Camino Real, appropriate station landings and pedestrian access should be maintained without obstructing a clear route along the sidewalk, in addition to the other amenities for regular bus stops in the Planning Area. In addition, to better accommodate and enhance bus service on El Camino Real and on Ralston Avenue, Caltrain facilities and the City-owned property adjacent to the Caltrain station should be considered for use as a bus hub, with the potential to improve and/or consolidate stops and provide more direct connections to Caltrain.

To better accommodate the new right-of-way along Fifth Avenue and proposed crossing, the two bus stops located along Ralston Avenue in this location may be moved. The location should be on the far side of the intersection. Opportunities exist to incorporate the stop into the design of public space at either end of Fifth Avenue at Ralston Avenue.

CALTRAIN

Service

Caltrain has a station adjacent to El Camino Real, north of Ralston Avenue. Average weekday passenger boarding at this station in 2015 was 699, a 4.5 percent increase from 2014. In 2015, 95 bicyclists boarded the train at the station on an average weekday, and 102 disembarked at the station. Weekend numbers were higher, where 454 bicyclists boarded and 442 disembarked (on average). This station is not served by the "Baby Bullet" express service, which travels between San Francisco and San Jose in about an hour.

Caltrain provides service all the way north to San Francisco and south to San Jose.

A 2013 study analyzed the projected ridership with a modernization of the entire system, which includes plans to electrify the Caltrain from San Francisco to San Jose. For Belmont, the study projected a 79 percent increase by 2040, regardless of whether the system would undergo modernization, and a 130 percent increase in ridership by 2040 if the system were to undergo modernization.[1] Construction on the electrification project started in 2017, and the first electric trains are expected in 2020 or 2021.

A separate study from 2013 studied possible alternatives for operations for when High Speed Rail is built. In order to support more than eight total trains per peak direction per hour, overtake tracks will be needed somewhere on the Peninsula. Overtake tracks in this context are those that would be used by high-speed rail trains to pass (overtake). While it is a possibility that overtake tracks will be needed through Belmont, their ultimate location(s) has not yet been determined (as of 2017).

1. Santa Clara Valley Transportation Authority, "Caltrain Peninsula Corridor Electrification Project – System Ridership Analysis," January 2014.

Caltrain is currently developing a Bicycle Parking Management Plan to address the growing number of riders who bring bicycles on board. After the public outreach period, Caltrain expects to make their recommendations public in 2017.

The Specific Plan aims to improve pedestrian and bicycle access to the Belmont Caltrain Station.

Bicycle and Pedestrian Connections

Any new public space around the station area should include additional amenities for pedestrians and bicyclists, including bicycle parking, pedestrian-scaled lighting, benches, shade (through trees or structures), public art, and wayfinding.

Existing connections to the station area at Masonic Way should be improved to provide convenient and direct access to a crossing at Hill Street.

No new station platform access points are proposed. However, should a new access point be constructed, it should meet ADA requirements and accommodate bike access.

CALIFORNIA HIGH SPEED RAIL (HSR)

Over the planning horizon of the Specific Plan, it is anticipated that the California High Speed Rail (HSR) will utilize Caltrain right-of-way to build rail infrastructure to operate trains on existing Caltrain tracks; however, no stops are planned within Belmont city limits. Operation is currently programmed to commence in 2029. The City will continue to work with the California High Speed Rail Authority and neighboring agencies to ensure safe crossings are provided for all transportation modes and that adjacent land uses are compatible with future operation and the rail alignment.

GOAL 3.3 Provide safe and convenient access to transit.

Policy 3.3-1 Create inviting bus stops with benches, shelters, pedestrian-scaled lighting, and other amenities at bus stops within the Planning Area.

Policy 3.3-2 Work with SamTrans on bus stop relocation as other improvements (streetscape, roadway and property development) occur. In particular, consideration should be given to:

- The stop for westbound buses on Ralston Avenue currently located between El Camino Real and Sixth Avenue, when the Fifth Avenue extension and Village Core redevelopment occurs; and
- Creating a "bus hub" on the Caltrain property and/or the City-owned property adjacent to the Caltrain station (at Old County Road), to consolidate service and better facilitate transfers between transit providers.

Policy 3.3-3 Improve access to Caltrain for all transportation modes by:

- Maintaining existing bike parking and providing additional bike parking at the Caltrain station area as demand increases;
- Providing a direct pedestrian and bicycle connection through the Caltrain station from Masonic Way to Hill Street; and,
- Coordinating with the High Speed Rail Authority to ensure future improvements do not impede walking or biking to and through the station area; and
- Improving bus connections through facility and schedule improvements, in coordination.

3.5 PARKING AND TRANSPORTATION DEMAND MANAGEMENT

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) refers to a set of strategies that result in increased efficiency in a transportation system by changing travel behavior. The implementation of appropriate TDM programs can discourage the use of single-occupancy vehicles as a user's primary mode, especially for commuting, and transition users into other transportation modes including transit, bicycling, carpooling, and walking. An implementation priority for this Specific Plan is for the City to create a formal TDM program.

The Belmont Village Zoning regulations (Appendix A) establish TDM requirements for development projects meeting a certain size threshold. However, these strategies should be implemented to the extent feasible throughout the Planning Area to reduce vehicle-trips consistent with ABAG's Plan Bay Area VMT reduction targets, in order to achieve citywide goals to reduce vehicles-miles traveled consistent with ABAG's Plan Bay Area VMT reduction targets by 15 percent. To administer the TDM program on an area wide basis, the City can set up a Transportation Management Association (TMA). A TMA can be a City function or outsourced to a third party to administer and implement TDM program elements for multiple entities. The following TDM programs are recommended for implementation within the Planning Area; refer to Appendix A (Section 31.7) for specific requirements and Appendix B for a full list of acceptable TDM measures.

- Cash equivalent parking cashout programs, where an employer gives employees a choice to keep a parking space at work, or to accept a cash payment and give up the parking space.
- Pre-tax commuter benefits to encourage use of transit.
- Free or low-cost transit passes for employees and residents.

- Car and vanpool coordination, with free vanpool parking for large employers.
- Carsharing (e.g. Zipcar, City Carshare) made available on-street and within residential developments. Carsharing programs provide affordable and convenient short-term car rentals to members who need a car to make trips occasionally. These programs provide a service that encourages a decrease in vehicle ownership, resulting in overall fewer trips made by automobile and a decrease in parking demand.
- Guaranteed free-ride-home services for employees who commute via alternative modes should an emergency arise.
- Bike share system.

PARKING CONTEXT

Parking is currently provided in the Planning Area via both on-street and off-street parking facilities. The majority of off-street parking facilities are provided on large, private surface lots for the use of retail customers and employees; however, there are off-street parking lots owned and operated by the City of Belmont for public parking. These surface lots are typical of suburban shopping centers, are not accommodating to pedestrians, and result in low density land uses. They also interfere with the ability to create a cohesive central business district. With the development of Belmont Village, these surface lots will eventually be replaced with buildings, streets, and open space.

The need for parking generally varies by land use. Commercial and retail land uses need parking for employees who travel by automobile and occupy parking spaces for longer periods during the day. Residential land uses need parking for residents who occupy parking spaces for longer periods, generally on weekday evenings and weekends. Retail land uses also require short-term parking for use by patrons of restaurants, shops, and entertainment.

Parking Management Strategies

Free and plentiful parking encourages residents, patrons, and employees to drive personal automobiles. The implementation of parking management strategies can reduce the number of parking spaces needed within the Planning Area. A Belmont Village parking management plan will be established by the City. Overall parking demand will be dependent on the developed land uses. Parking minimums and

maximums will be developed for each land use within the Planning Area with consideration of parking and transportation demand management strategies (see zoning regulations in Appendix A).

The following parking management strategies provide options to allocate parking within the Planning Area while minimizing the need for large parking lots that take up space that can otherwise be utilized as a public resource.

The Specific Plan aims to implement parking management strategies to "right-size" the amount of parking spaces needed in the Planning Area.

- **Shared Parking.** Parking facilities are to be shared by multiple users by day of the week and time of day. Commercial, retail, and residential land uses benefit from shared parking by utilizing spaces that would otherwise be empty. Parking demand for mixed-use buildings will be accommodated by private long-term parking that will be developed for all land uses jointly.
- **Unbundled Parking.** Developments will rent or sell parking spaces separately from commercial and residential uses.
- **"Park Once" Strategy.** Parking should be readily available and convenient to ensure viability of businesses in the Planning Area. Persons coming to Belmont Village can park a vehicle in one location and access multiple destinations by walking. All short-term parking within the Planning Area will be publicly accessible and provided in centralized parking facilities throughout the Planning Area, which are designed to minimize conflicts between vehicular access and people traveling on foot or bicycle. Appropriate wayfinding signage will create a sense of identity in the area and provide information to patrons to locate parking spaces as near as possible to their destination and travel back to the street network.
- **On-Street Parking.** On-street parking increases the amount of public parking available, especially where streets already have sufficient right-of-way to support vehicles. On-street parking also calms traffic and provides a buffer between sidewalks and moving vehicles, creating more comfortable pedestrian facilities. On-street parking spaces also work well where entries to retail storefronts are placed at the back of the sidewalk.
- **Equitable and Smart Pricing of Public Parking.** Public parking structure spaces should be priced to incentivize and accommodate longer term parking, and on-street parking meters, paystations, and other collection mechanisms should be priced to make available shorter term (high turnover) parking. Smart pricing technology is a tool that can be used to manage parking by adjusting the price of parking according to location, time of day, and day of the week; implemented in San Francisco, the SFpark program has been shown to reduce the time and fuel wasted by drivers looking for an open space.

- **Planning for Changes in Parking Needs.** Designated off-street parking areas, including lots and garages, should be designed with consideration for future needs, which includes the potential decreased need for close-proximity parking. Off-street parking facilities should be designed in a flexible manner that allow for the smart conversion of these facilities into other land uses, and special consideration should be given to the design of garage ramp grades.
- **Parking Benefit District.** Establish a Parking Benefit District. A Parking District would be established with a portion of the revenue collected from parking fees being invested back into the area to maintain landscaping, improve streets, clean sidewalks, and other benefits. In-lieu fees will be collected from development when parking is not provided on-site (especially retail uses within the Village Core).
- **Off-Street Parking.** Centralized off-street parking sites should be located at the Civic Center (i.e., City Hall and Twin Pines Park area) and at a new parking garage located between Sixth Avenue, Fifth Avenue, Waltermire Street, and Emmett Street. The Civic Center parking site will be reconfigured to improve vehicle circulation and consolidate the size of the parking lot to make room for bicycle and pedestrian connections.

Bicycle Parking Requirements

The City should utilize best practices for bicycle parking, including guidelines from the Association of Pedestrian and Bicycle Professionals (APBP). The APBP *Essentials of Bike Parking* provides guidance for bike parking. Proximity to the destination and ease of use are critical when planning for bike parking.

Short-Term Bike Parking

Short-term parking is designed to meet the needs of people visiting businesses and institutions, and others with similar needs—typically lasting up to two hours. It should be convenient and easy to use. All racks must be sturdy and well-anchored, though location determines the security of short-term parking as much as any other factor. Users seek out parking that is visible to the public, and they particularly value racks that can be seen from within the destination.

Location

Bicycle parking should be visible from, and close to, the entrance it serves—50 feet or less is a good benchmark. Area lighting is important for any location likely to see use outside of daylight hours.

Quantity

Many jurisdictions have ordinances governing bike parking quantity. According to the APBP, perceived demand for bike parking may be lower than the demand that develops once quality parking appears.

For areas with limited sidewalk space, placing bike parking in on-street "bike corrals" located in the street area adjacent to the curb is a popular option. Bike corrals can sometimes make use of on-street areas that are unsuitable for auto parking such as next to intersections. When replacing a single auto parking space, a corral can generally fit 8 to 12 bicycles.

Styles

There are a variety of styles of short-term bike racks. When properly designed and installed, these rack styles typically meet all performance criteria and are appropriate for use in nearly any application.

Long-Term Bike Parking

Long-term parking is designed to meet the needs of employees, residents, public transit users, and others with similar needs. Users generally place high value on security and weather protection, as they often leave their bicycles unmonitored for a period of several hours or longer when at home or the workplace. Long-term parking, according to APBP guidelines, can take a variety of forms, including a room within a residential building or workplace, a secure enclosure within a parking garage, or a cluster of bike lockers at a transit center. Long-term parking can be open to the public—such as a staffed secure enclosure at a transit hub—or on private property with access limited to employees, residents, or other defined user groups.

Location

Appropriate locations for long-term parking vary with context. Long-term parking users are typically willing to trade a degree of convenience for weather protection and increased security. Long-term installations emphasize physical security above public visibility and, as such, signage may be needed for first-time users.

Quantity

As Belmont does not have a bike parking ordinance outlining minimums, the city will need to work with the larger stakeholders who may want to install long-term bike parking to determine the most effective quantity. Caltrain, for instance, is installing more long-term bicycle parking at stations to account for the high numbers of riders who want to bring their bicycle on-board, but, due to limited space, would otherwise be "bumped" from the train. Greater supply of long-term bike parking helps to alleviate this problem.

Bike Share

Bike share systems, in which individuals can access bicycles for shared use on a very short term basis, are effective ways of encouraging bicycle travel, especially for trips where a bike is only needed on one end. Given the proximity to the Caltrain station, Belmont Village may be a great location for bike share. The City should assess the feasibility of bike share at the Caltrain station and throughout the Planning Area.

GOAL 3.4 Meet citywide goals of reducing automobile trips through the implementation of Transportation Demand Management strategies.

Policy 3.4-1 Implement Transportation Demand Management for developments in the Planning Area. Require development projects to implement TDM measures according to the Village zoning regulations (Section 31.7) and encourage projects not meeting the threshold to consider implementing TDM.

GOAL 3.5 Provide parking that meets the needs of Belmont Village to ensure its vibrancy and economic vitality, while encouraging walking, cycling, and transit ridership as the primary modes of access to and within the Planning Area.

Policy 3.5-1 Minimize the number of parking spaces in the Village Core to the extent feasible.

- Implement parking management strategies through the creation of a parking management plan that includes parking minimums and maximums for each land use.
- Encourage the use of shared parking facilities within multi-tenant buildings and between adjacent private developments.
- Unbundle parking by renting or selling parking spaces separately from commercial and residential property.

Policy 3.5-2 Ensure parking is readily available and convenient to ensure viability of businesses in the Planning Area by employing the following strategies:

- Provide publicly accessible short-term parking in centralized parking facilities or on-street. New surface parking lots are strongly discouraged.
- Provide appropriate wayfinding signage that is informative and consistent throughout the Planning Area.
- If parking pricing is implemented, price on-street parking to encourage shorter term (high turnover) parking.
- If parking pricing is implemented, price off-street parking to encourage longer term parking.
- If parking pricing is implemented, employ smart pricing to adjust parking prices based on location, time of day, and day of the week.
- Establish a Parking Benefit District, with a portion of the revenue collected from parking fees to be invested back into the area to maintain landscaping, improve streets, clean sidewalks, and provide other benefits.
- Collect in-lieu fees from developments that do not provide parking on site.
- Establish centralized off-street parking at the Civic Center and in the Village Core between Waltermire Street, Emmett Street, Sixth Avenue, and Fifth Avenue.
- Improve vehicle circulation and consolidate the size of the Civic Center parking lot to make room for bicycle and pedestrian connections.